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FROM

W. T. Walsh,  
Holyoke, Mass.







Commonwealth of Massachusetts, Supreme Judicial Court.

Hampden, ss.

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HOLYOKE WATER POWER COMPANY,

=

PETITIONER,

v.

CITY OF HOLYOKE.

BEFORE

EVERETT C. BUMPUS, JAMES E. COTTER, AND

EDMUND K. TURNER,

*Commissioners appointed by the Supreme Judicial Court.*

---

APPEARANCES:

*For Petitioner:* FRANK P. GOULDING AND WILLIAM H. BROOKS.

*For Respondent:* NATHAN MATTHEWS, JR., ADDISON L. GREEN, AND  
NATHAN P. AVERY.

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CLOSING ARGUMENTS FOR THE RESPONDENT

BY

NATHAN MATTHEWS, Jr.,

AND

ADDISON L. GREEN.

VOL. XVII.

DEC. 20 TO DEC. 31, 1901.

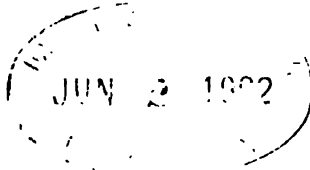
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Mr. J. W. Waker,  
Holyoke, Mass

STENOGRAPHIC REPORT

BY

FRANK H. BURT, MISS MARY A. POWELL, MISS SAIDEE M. SWIFT,  
AND WM. L. HASKEL.

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## EIGHTY-SIXTH HEARING.

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BOSTON, MASS., Friday, Dec. 20, 1901.

The Commissioners met at the Court House at 10 A. M.

Mr. GREEN. If your Honors please, there is a question open in regard to the poles and pipes that are on private streets and alleys. We have very nearly adjusted this by agreement. There are two or three matters that we can't understand till we telephone to Holyoke. Mr. Brooks must furnish us some dates before we can check up some work. I don't see why this can't stand open and be put in any time. We both agree to that, so far as this portion is concerned, if the Commission is willing.

Mr. BROOKS. May it please your Honors, if the purpose is to attack our title, our rights in any respect, we claim, of course, that this is not open under the pleadings in this case, but I presume whatever evidence was offered might be accepted for the time being, to be ruled on hereafter. I have no special objection to that, and if anything of that sort is to be put in, I also want to put in a list of the streets in which our gas pipe was laid prior to any acceptance of the streets by the city of Holyoke, and prior to their becoming highways or public ways.

Mr. MATTHEWS. In addition to what Mr. Green has said, I would like to call the attention of the Commissioners, as I have previously the attention of Mr. Brooks, to the Colony Ordinance of October 17, 1654; the Colony Ordinance of May 17, 1684, and Province Laws, 1773-4, Chap. 26.

Mr. BROOKS. I would like to take that, Mr. Matthews.

Mr. MATTHEWS. I will give you a copy.

Mr. BROOKS. I would like to see them now.

(Book given to Mr. Brooks, by Mr. Matthews.)

Mr. MATTHEWS. Before beginning the closing argument in this case, I desire to repeat the question which has been propounded at various stages of this case to my learned friends upon the other side, and to ascertain, if we can, what the position of the Holyoke Water Power Company is with reference to its offer of water power; whether it has offered the water power in this case for valuation by the Commissioners, or whether it has offered the water power only upon the terms stated in its original schedule, or in the amended offer made through Mr. Gross, in Vol. VIII.

Mr. BROOKS. Are you propounding a conundrum to me? Because, if you are, I should like to have it read.

(Question read by stenographer.)

I will take that question under consideration.

Mr. MATTHEWS. That, it seems to me, is not a fit or appropriate manner in which to treat an important matter of this kind. I don't ask for Brother Brooks's opinion or argument on a question of law: that I presume he will present with his usual ability and success after I have concluded mine. I want to know the answer to a simple question of fact whether the Holyoke Water Power Company offers the water power involved in this case to the City of Holyoke at such a price or rent or bonus as the Commissioners may determine upon the evidence in the case, or whether, as has been intimated, the Company understands that the Commissioners cannot value the power as to rent or bonus, but the City, if it takes the water power at all, must take it upon the terms suggested by the Company as to amount, rent, and terms of use.

Now that is a question of fact, or rather, a question of election or option on the part of the Holyoke Water Power Company. It is conceivable that a corporation finding itself in the position occupied by the Holyoke Water Power Company after the passage of the final vote by the City, might conclude that it would offer part of its property for valuation under the statute, and offer the rest of its property, or some thing or contract to be used in connection with its property, upon terms specified by itself in advance.

It is conceivable that such a course might be for the in-

terest of the Company, and I am prepared to admit that the Company might have a right in law to make such a conditional offer. But we are in some doubt now, as we have been from the beginning of this case, whether the Holyoke Water Power Company has, in fact, offered its water power, conditionally, *i.e.*, at a fixed rent and upon certain other fixed terms and conditions, or whether it has offered its water power, as well as its gas and electric light plant, upon such terms as to price and otherwise, as this Commission may find to represent its fair market value for the purposes of its use.

Now, if I were propounding a question of fact, my brother might reply to me that the facts were in the fifteen volumes of evidence. If I were to ask him a question of law, he might say that he would reply when his hour was reached. But the question that I am asking is neither one of fact nor one of law,—at least it is not one of fact in the sense that it is a question of evidence. The question I propound is one of intent on the part of the Holyoke Water Company, an intent that ought to have been specified in its original schedule and proposal to the City, under date of January 8, 1898, but which, for some reason or other, was not then made entirely clear.

This whole case has been tried, from the beginning to the end of it, in an uncertainty on the part of the respondent—and in equal uncertainty, I presume, on the part of the Commissioners,—as to whether or not the Holyoke Water Power Company intended and meant to offer its water power for valuation by the Commissioners. It seems to us that this question should be settled now. I don't know any way to force my brother to answer my question if he doesn't choose to, but his failure to answer it now will result, of course, in our being obliged to argue this case—as we have been obliged to try it—upon two alternative theories with respect to the water power; to wit, first, upon the theory that the water power is offered for valuation by the Commissioners; and secondly, upon the theory that it is not offered for valuation, but that the property to be valued by the Commissioners is confined to the electric light plant and gas plant respectively. Am I able to extract any further light from you, Brother Brooks?

Mr. BROOKS. If Mr. Matthews had propounded this question to me some time ago, I might perhaps be in a condition to answer it now. I have my own opinion about what my answer will be now; but the lamentable death of the distinguished gentleman with whom I have been associated in this case has, of course, precluded me from having any advice with reference to it, from any source. I expect to meet Mr. Gross this afternoon, the president of the Holyoke Water Power Company; and I think to-morrow morning that I can take the responsibility of answering the question of my friend. But I should like to have as early as possible the remarks that he has made in this connection this morning, so that I may see just to what extent he desires information, if he hasn't it already.

Mr. MATTHEWS. That suggestion, Mr. Brooks, I think will meet my purposes, because the other parts of the case will occupy my attention this morning and this afternoon. I will not take up the question of water power until I have heard from Mr. Brooks. Before passing from this matter, however, I should like to say that this is the same question that we submitted for the consideration of the Holyoke Water Power Company on November 12, 1900, at the beginning of the thirty-first hearing. The question will be found printed on the first page of Vol. VII. No answer was made at that time; and in Vol. VIII., p. 265, the Company declined again to answer this question.

Mr. BROOKS. I don't know that there has been any declination. I presume we might have said that our offer spoke for itself, but I do not care to take that position. I shall be perfectly willing to furnish any information that I am able to. I don't think there is any occasion for any special complaint this morning.

Mr. MATTHEWS. I am not making any complaint. I am simply asking for information that will shorten my argument, and possibly prevent the necessity of my asking the Court to listen to a reply to you on the question of water power.

Mr. BROOKS. Your Honors may recall that there was a



series of deeds offered by the petitioner, perhaps 37 or 38 in number, showing the ownership of the petitioner to all the land along the river bank from the Trotting Park, which was some distance below the lot that my friends picked out for an ideal location, to the Northampton line. I thought they were in evidence, and I think so now. I do not think there is any question between us upon that. But I notice by the record that they seem to have been left with Mr. Green for inspection, and there is nothing in the record disclosing that they were actually put in evidence. Mr. Green hands me the deeds this morning, with the possible exception of one, No. 12, which does not seem to be among the lot. You will very likely be able to find that later, Mr. Green.

Mr. GREEN. I don't remember what I did with it, if there was that one.

Mr. BROOKS. I would like to have these go in now with the same efficacy that they would have possessed had they gone in in Vol. XIV.

Mr. MATTHEWS. There is no objection.

The CHAIRMAN. Very well.

Mr. GREEN. Please make me think of that No. 12, Mr. Brooks.

Mr. BROOKS. There is an index that goes with them, that I think ought to go in too for information, and deed No. 12 you will endeavor to give me later.

Mr. GREEN. I will look and see if I can find it.

The deeds above referred to, 38 in number, were marked "Exhibit 290," as one exhibit. The deeds bear the following numbers: No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 13*a*, 13*b*, 13*c*, 13*d*, 13*e*, 13*f*, 13*g*, 13*i*, 13*j*, 14, 14*a*, 14*b*, 15, 15*a*, 16, 16*b*, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26.

Accompanying the above is Indenture between Holyoke Water Power Company and Clemens Herschel, dated May 15, 1886, marked "Exhibit 291."

Index to above marked "Exhibit 292."

## CLOSING ARGUMENT ON BEHALF OF THE CITY OF HOLYOKE.

BY NATHAN MATTHEWS, JR.

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*Mr. Chairman and Gentlemen of the Commission :—*

The Commissioners will be ready to receive the congratulations of counsel upon approaching the end of this long case. These congratulations must, however, be tempered with regret that one of us, who had taken so prominent a part in the trial of this cause, has been removed to another sphere. It has been the lot of all of us who are members of the bar to have tried cases with, or on the other side from, Mr. Goulding, upon other occasions ; and our connection with him in this case was as pleasant and promised to be as fruitful in instruction and information as in the others. But, to our great sorrow, he was taken from us last summer ; and we are therefore obliged to close this case without him.

Death has also intervened since the last meeting of the Commissioners in this cause, to remove one of the last witnesses who took the stand,—Mr. Tower,—and has otherwise interrupted the course of the trial in two or more instances, so that it is a matter for congratulation all round that the case can be presented finally at the present time.

The petition was filed upon the 15th day of March, 1898. The Commissioners were appointed on the 12th of May in the same year. The first hearing was held on April 5, 1899, having been postponed until that date at the request of the parties, rather than at the instance of the Commissioners or counsel. The eighty-fifth and final hearing was held upon the 23d of May, 1901. This cause, therefore, was tried in practically two years, notwithstanding an interruption of about ten months, caused by the attempt of the parties, acting under

the sanction of a special act of the legislature, to compromise the case. Deducting that interval of ten months, it appears that the actual trial of this case has occupied not more than fourteen months. In view of the not unnatural criticism which has been made in many quarters, particularly among the inhabitants of the City of Holyoke, at the delays, which may have seemed to outsiders and to laymen unaccountable, I deem it my duty to call attention to the fact that the trial of this cause, the longest valuation case, I believe, as measured by the amount of testimony, ever tried in the United States, was completed in the space of the fourteen months.

The case has been a long one, and I think it only fair to note, in passing, that the number of hearings was prolonged, and the amount of testimony necessary increased, by the attitude taken by the Holyoke Water Power Company, particularly upon the question which I alluded to a moment ago, as to the nature of its offer of water power.

Another and more certain cause of the length to which the hearings in this case have been protracted, was the failure of the commissioners to rule upon the questions of evidence, and upon the admissibility of certain theories of valuation, as and when the same were first presented. The commissioners adopted, doubtless with entire propriety, the course which was followed in the first valuation case which was tried in England under the Tramways Act, and heard substantially all the evidence offered by either side upon various inconsistent and alternative interpretations of the law, reserving, until the evidence was closed and the final arguments made, the determination of the admissibility of the evidence offered. That was the course adopted in this case. It was, perhaps, the best course for the commissioners to pursue; having before them the construction of a law modelled in many particulars after the English Acts, but differing in others, and one, the interpretation of which had never yet received any aid from our Supreme Judicial Court. It is the only statute of the precise sort that was ever passed by any legislature in the United States of America; and no close precedent for it can be found except in the Tramways Act passed by the British Parliament in 1870, and the Electric Lighting Act of 1882.

Counsel for the City may, at times, during the progress of this cause, have seemed over-solicitous to argue the questions of law as they were presented from day to day, but it was because they felt that unless those questions were settled as and when they arose, the case would be unduly prolonged. Counsel for the Company, however, were very strongly of the opinion that all questions of law should be reserved until the final arguments, and that was the decision of the commissioners: with which decision we have no quarrel, and which, as I said before, was perhaps the most judicious on the whole for them to make. But it is easy to see, in looking back on the case, that much time at least could have been saved by a peremptory ruling upon many of the questions presented by the petitioner while its evidence in chief was going in; as in case the ruling was adverse to the Company it would not have been necessary for the City to have met the evidence in question.

In any view of the case, however, it was bound to take what would seem to outsiders and to laymen an inordinate amount of time. We had in this case a novel law: a statute passed, as has often been the case in Massachusetts, to blaze the way for other legislatures; a scheme of municipal ownership entirely different from any that had ever been furthered by the legislature of this Commonwealth, or of other States in the Union; we had, therefore, a case which, if it had involved the valuation of but a single subject matter, would necessarily have been a long and tedious case to try.

But, as it happened, this particular case presented four distinct subjects for valuation: a gas works, an electric plant, a water plant, and a certain class of water power or a certain contract for the use of water power, which was tendered by the Company to the City.

We have these four distinct subjects of valuation, each of them necessitating a lengthy trial. And, without dwelling any further upon the length of time to which this case has been protracted, I desire simply to call attention to the fact that this case, involving four distinct subject matters of litigation and of valuation by the Commissioners, has been completed in fourteen months of actual trial, and eighty-five hearings; while

the Newburyport case, the Gloucester water case, the Kettle Brook case, the Boston Belting Company case, and other valuation cases which have recently been tried in Massachusetts, in all of which substantially only a single thing or subject was under valuation, occupied from one-half to two-thirds as much time, both in regard to the number of hearings and to the mass of printed testimony.

This case, Mr. Chairman, has not only been a long one, but it is a most important one. It involves the construction of the Municipal Lighting Law of Massachusetts, which, as I said, is the first attempt to permit towns and cities to go into the business of gas and electric lighting, in competition upon terms of equity with the corporations engaged in private business in the communities in question ; that is, it is the first general effort of that sort ; the first general legislative permission for municipal competition or municipal ownership upon terms which recognize that private capital operating in the community in question has some right to legislative protection, as a condition precedent to the establishment of a public plant.

The case is important, by reason, also, of the amount involved in it, as measured by the difference between the claims made by the respective parties, throwing entirely aside, as unworthy of a moment's thought, the Company's attempt to secure a valuation of its property on the basis of a capitalization of the earnings of its business, and confining myself simply to the estimates of the value of the Company's property. The difference is large. The Company wants about \$330,000 or \$340,000 for its gas plant, and about the same amount for its electric light plant, or a total of nearly \$700,000 in cash for its property, and a rent of \$24,750 per annum for its water. The City's contention is that the value of the gas plant is not in excess of \$200,000 ; that the value of the electric plant does not exceed \$140,000 ; that the value of the entire property, both plants combined, is therefore not in excess of \$340,000, and that the annual value of its water power for operating the electric light station is from \$4,500 to \$5,000 per annum only.

We thus have a difference of about \$350,000 in the amount which the parties respectively claim to be the fair value of

the tangible property involved in this case, and a difference of some \$19,000 per annum, which, capitalized at 5 per cent., is nearly \$400,000 more in the valuations put by the respective parties upon the water power offered with the electric light plant. And if the Commissioners consider for an instant the exaggerated valuations placed by the Company upon its property and franchises and business, the discrepancy between the parties, the amount at issue is far greater still.

The decision of this case, Mr. Chairman, is awaited, as the Commissioners must well know, with great interest and anxiety by a great many different people. The parties to the case, in the first instance,—and one of them represents the entire population of the City of Holyoke,—are deeply interested in the outcome; for, having intended, as appears from the vote which was passed by the City Council and submitted to the people, to establish merely an electric lighting plant, possibly only for municipal business, they found themselves confronted, after they had acted at the election of 1897, with the possibility or probability of having to buy, not only an electric light plant, but a gas works, which they had had no thought of acquiring up to that time, and also with the claim that they should pay an unheard-of rent for the water power which was used to operate the electric light plant. The issue in this case, therefore, is one of great financial moment to the people of Holyoke; and the decision of this tribunal is awaited by every person in the community, every official, every taxpayer, every inhabitant of Holyoke, with the liveliest interest. And there is one class of the city officials of Holyoke who must be watching the award of this tribunal with a special and peculiar concern. I refer to the assessors of the City of Holyoke; for, as you know, a large part of the wealth of Holyoke is invested in mill property, and the assessors are obliged to value in one way or another, as appurtenant to land, as a capacity of use, or in some other manner, the water power used by the mills to run their business. They have doubtless been valuing that water power upon certain theories as to market price and value. If the award of this tribunal should result in placing a higher or a different value upon one class of power

in the City of Holyoke, that would necessarily have a tendency to affect the action of the assessors of the City of Holyoke in their official capacity; and the valuation of any one class of power necessarily affects the valuation of all classes of power. If, for instance, the so-called non-permanent water, or water power on the non-permanent basis, which is a more accurate expression, I think, is worth so much a year, why, water power on a more favorable basis — permanent, guaranteed power — is worth considerably more. Therefore, a determination by this tribunal of the value of this so-called non-permanent water power in Holyoke is bound to have an important effect upon the valuation of all mill property in the City of Holyoke and upon the action of the City assessors,—that is to say, if it should materially differ from the values now assumed by the assessors. And there is another class in the community that is watching the result of this controversy with considerable interest, and that is the large numbers of lawyers, city and State officials, and members of the Legislature who have occasion to consider from time to time the meaning of the Municipal Lighting Acts of 1891-93 and the advisability of modifying that legislation or extending its scope. Municipal corporations generally throughout the country seem, if I may judge from the numerous requests for the evidence in this case, to be particularly interested in it. I don't know whether the Commissioners have had the same experience that I have had; but, if they have, they will have had requests, not only from all parts of this country, but from Europe, for the evidence, the arguments, and, particularly, the findings of law and value, as they shall be rendered.

As to what the action of the Commissioners in this case should be, I may perhaps be permitted to offer a few suggestions. They are acting under a law which provides, in Section 13 of the Act of 1891, that they shall adjudicate what property, real and personal, etc., shall be sold by one and purchased by the other, and what the price and other conditions of the sale and delivery shall be. And Section 14 provides that after the award of the Commissioners either party may "apply to the Court for a hearing on such award relative to any matter of fact

or law pertaining to the same." I desire to direct your Honors' attention particularly to those words, "relative to any matter of fact or law pertaining to the same," because the presence of those words in this Statute indicate an express intention on the part of the legislature that the practice which ought in my judgment to obtain in all valuation cases, shall at least obtain in valuations arising under the Municipal Lighting Act. Most of the valuation cases in this State are tried under the terms of special statutes with which we have nothing to do, perhaps, or under the tax law of 1890, where, as you know, the aggrieved party can appeal from the action of the assessors to the Superior Court, a Commissioner is appointed who reports to the Court, and the Court itself may hear the cause all over again. That procedure was adopted to obviate the injustice evident in such cases as Beverly, of permitting the assessors to fix the values of property at any figure they chose, subject only to an appeal to the County Commissioners. Both assessors and County Commissioners being in a sense political officers, the fact that there was no appeal to the courts of law was felt by the property owners of this State to be a great injustice, and as that feeling happened to culminate at about the same time as the agitation over the division of Beverly Farms, both matters were settled by one and the same law, which was drawn largely in my office. That act has been eminently successful, as indicated by the very relatively few appeals that have been taken under it. There has never been an appeal, I believe, in the city of Boston, under that law. Many appeals have, however, been taken to the Superior Court by corporations, mills, and others, for a revaluation of their property by judicial process; and the practice is, if the parties insist upon it, to have the case entirely retried by the Court after the report of the Commissioner is filed.

Now, if this Commission were acting under a statute like that, I should still claim that it was their duty to make a finding upon every question of fact or law suggested or requested by either side, in order that, when the case came before the Court itself, the issues between the parties might be reduced to the fewest number possible, and the expense of an entire re-



trial saved. That I understand to be the practice of many commissioners who are appointed under that act. I might, for instance, refer to the elaborate findings in the Tremont & Suffolk and the Troy Cotton Manufacturing Company cases, reported in 163 and 167 Mass., respectively. If, therefore, the Municipal Lighting Act had used general language, such as is found in the law regulating appeals from assessments, passed in 1890,—general words giving to either party a right to appeal to the Court,—I should still argue that it was the duty of the Commissioners to facilitate the labors of the Court, by finding in the first instance any question of either fact or law that either party may suggest. That duty seems to me to have been specifically enjoined by the Legislature in the enactment of the Municipal Lighting Law, because Section 14, from which I have already quoted, provides explicitly that the hearing before the Court shall be relative to “any matter of fact or law pertaining to the same”; and it is too plain, it seems to me, for argument, that, in view of that procedure, the Commissioners should grant the request of either party to this case, and make a ruling of law or a finding of fact upon every single point that may be suggested by either.

Apart, however, from the language of the statute, that is the only way, Mr. Chairman, it seems to me, to justify the great expense and length of these hearings. Causes of this magnitude and importance are tried before commissioners rather than before a jury, for the sake of getting or receiving more careful thought and attention, and of having the decision formulated in a more painstaking and detailed manner than is possible by a jury trial. Of course, before a jury, issues can be framed; but we all know in practice that, when the issues get to be more than four or five in number, they tend to confuse the deliberations of the jury. If, however, the case is tried by commissioners in the way we suggest, there is no possibility of confusion, no matter how great the number of special issues which the parties themselves frame; and it seems to me the only way to justify the great, and what many persons think the inordinate, expense of judicial proceedings of this kind, is that they shall result in a careful, detailed, painstaking report upon every question of fact or law propounded by either party.

I need not, of course, suggest to the members of this Commission that there should be no rough or indiscriminate process of averaging resorted to. Such a process simply puts a premium upon the number of witnesses each side calls, and is a reflection even upon the capacity of a jury. Nor need I suggest that the Commissioners will not, by indirection,—as a jury sometimes does,—work into their values elements which, as a matter of law, they think should be excluded. If, for instance, the Commissioners conclude that the earnings of this corporation in its business are not to be taken into account by them in valuing its property,—there is, of course, no danger, in a case tried before a Commission, that the earnings will, in some way or other, be worked into the property valuations found by the Commissioners. We assume that no franchise values will be surreptitiously worked into a property valuation by a commission which determines, as a matter of law, that a franchise valuation is incompetent. And finally, if the Commissioners decide that any element which is not conceded to be an element of value by both sides of the case is properly to be taken into account, they should state the fact and estimate its amount, so far as is humanly possible for them to do. That suggestion has reference to a number of so-called elements of value which the Commissioners may perhaps think of some assistance in determining the fair market value of the Company's property in this case, but which are not conceded by the respondent to have legitimately that effect. If the Commissioners decide to take any of those elements into account—as we do not think they will decide, after hearing the arguments and the evidence—but if they should decide to take any of those elements into account, the only way to do justice to the City of Holyoke, the only way to preserve the rights of the respondent in this case, and prevent a re-trial of the whole cause before the Court, is to specify with the greatest particularity the character, nature and extent of those elements, and the amount which, in the judgment of the Commission, they represent.

Now, in regard to the argument of this case, Mr. Chairman, it is our purpose to submit a brief covering the law points in the case, which is ready now, except for the insertion of a few

matters and for one or two clerical errors, or printer's errors. We shall endeavor to have it in shape for the Commission at the close of the arguments. We also hope to be able to present an abstract of the evidence. In submitting the law part of this brief, we desire at the outset to disclaim any intention to prepare a compendium or treatise upon the law of valuation, although possibly the length of the document may suggest such a thought to the minds of the Commissioners. We have simply tried to bring out the law of the Commonwealth of Massachusetts, as we understand it to be, in its application to the numerous issues that have arisen in this case. The case, as the Commissioners must have noted from time to time, presents almost every conceivable question in the law of valuation. I believe that it is literally true that there is not a question as to the legal mode of valuing property that has ever been presented to the attention of any judicial body, that has not arisen in one form or another, during the eighty-five hearings of this cause. The questions of law involved in this case are practically co-extensive with the law of valuation itself. Furthermore, as those of us who are members of the bar have had frequent occasion to deplore, there is no treatise upon valuation. No lawyer has ever yet taken the time and pains to collect, collate, digest and annotate the authorities upon that branch of law.

Mr. BROOKS. He considers life too short, probably.

Mr. MATTHEWS. That may be. It has been partially attempted in the law books on damages,—in Sedgwick, and other books of that sort; but, as my brother suggests, lawyers seem to have shrunk from the task of writing a book devoted especially to the subject of valuation. And yet these cases are becoming more and more frequent from year to year; but while they are becoming more and more frequent every year, it has only been in comparatively recent years that they were of great consequence. In view of these considerations, the preparation of the law brief in this case has been a task of unusual labor. We simply submit it with the suggestion and prayer that the Commissioners will read it, and study it, and consider it in all its parts with a degree of care commensurate with that which has been bestowed upon its preparation.

In regard to that part of the brief, I should like to say for the benefit of Mr. Commissioner Turner, that it discusses to great extent questions of evidence and fact as well as questions of law ; and that, in so far as the rules of valuation themselves are concerned, they are, to our mind, to be determined in the main by the application of common sense. I mean to say determined as matter of law. The courts themselves determine the admissibility of evidence in valuation cases largely, if not entirely, according to whether they think that the evidence is of material aid in fixing the value of property, or not. If it is, the tendency is to let it in ; if not, it is certainly to be excluded. Consequently, the discussion of the unsettled questions in the law of valuation is necessarily not dissimilar from a discussion of logical relevancy, that is, of the material aid that is to be gained as matter of fact by the person who has to value the property from a consideration of the evidence in question. I trust, therefore, that every member of this Commission will regard the first part of this brief as equally important with the second, although nominally devoted to a discussion of points of law.

In regard to the rulings which we desire the Commissioners to make, we have in mind the request of the Chairman made some time ago that they should be prepared and submitted with the argument, rather than — as has sometimes happened in these cases — days, or even months, after the arguments are closed. We have accordingly adopted this course : The propositions of law which we desire the Commissioners to rule will be marked on the margin of Part I. of our brief ; and a similar course will be pursued with respect to Part II. and the findings of fact which we desire the Commissioners to make. That is to say, the Commissioners have only to take those copies of the brief which we submit to them — as also to counsel for the Holyoke Water Power Company — and note the portions scored in red ink in the margin, to ascertain exactly what propositions of law and findings of fact we desire the Commissioners to make.

Mr. BROOKS. When do you propose submitting this brief, Mr. Matthews, if I may interrupt for a moment ?

Mr. MATTHEWS. Certainly.

Mr. BROOKS. When do you propose submitting this brief?

Mr. MATTHEWS. At the argument.

Mr. BROOKS. At the close of the arguments?

Mr. MATTHEWS. Before the arguments are over.

Mr. BROOKS. At the close of your argument?

Mr. MATTHEWS. If we can get them ready. Just as soon as they are ready. If you have a brief we should be glad to exchange with you now, even in the fragmentary shape it is in.

Mr. BROOKS. I have no brief except the one I shall state orally. I would like to ask now, may it please your Honors, with reference to the requests for rulings. I haven't any prepared at the present time. I may have some prepared at the close, so as to present them at the close of my argument; but I should like the privilege of putting in my requests for rulings within a reasonable time after the arguments are closed, because I should like to investigate the requests made by the other side, and I presume they would such as I may present.

Mr. MATTHEWS. There will be no objection on our part. We have simply adopted the other course to facilitate the deliberations of the Commission.

I do not suppose that I need take any of the time of the Commission in reciting, even briefly, the main facts of this case. I take it that that must at least be familiar to us all. They will, however, be found noted at the beginning of our law brief in the form of a brief statement of facts. I will pass, therefore, directly to a discussion of the law questions involved in the case. I desire at the outset to call the attention of the Commissioners to three propositions of law which it may seem are so elementary as not to be worthy of citation or of more than a passing reference, so fundamental and conceded as not to merit the amount of space which has in fact been given to them in the pages of this brief.

The first proposition is that the Municipal Lighting Act

does not contemplate any taking of the Company's property, but simply a voluntary surrender by the Company of its own property. Secondly, that the purchase clauses of the Act,—that is, those clauses which permit the corporation to surrender its property to the City upon certain terms,—are to be strictly construed against the Company. And thirdly, that the damages or compensation to be awarded is to be restricted to that which is literally and expressly authorized by the act.

I said that I supposed that these propositions were so elementary and fundamental, that nothing more than a passing reference to them would be ordinarily considered appropriate; but we all know that even within the past three years the first of them was disputed by the Newburyport Water Company in the Circuit Court of the United States, and that the case is still pending, I believe, on appeal. I shall, however, not waste any time upon that proposition. I simply state it to your Honors, being confident that the overwhelming weight of opinion, the invariable decision of every court that has ever had occasion to consider the question, except Judge Colt, when the Newburyport case was first presented to him, is that a private corporation, engaged in the business of lighting or any similar public service business, in the streets of a town or city, has no legal right to protection from competition; and that it is within the power of the State legislature to authorize competition, whether by other private companies or upon public account, without compensation to the existing company in any way, shape, or manner, by compulsory purchase, by condemnation or otherwise. This has been decided by our State court in three cases, and I believe that no judicial dissent can be found from that proposition, except in the first opinion, since retracted, of Mr. Justice Colt in the Newburyport Water Case.

The second proposition is that the action of the Company in filing its petition for compensation under this act, is a waiver of all right to any compensation, except that given by the act itself. By that I do not wish to be understood as suggesting that, if a corporation desires to test the constitutionality of the law, as the Newburyport Water Company did, it cannot file a bill in equity, in either the State or Federal courts, contempo-

ranously with its petition for damages under the Municipal Lighting Act. That is, of course, a common practice, resorted to by all of us when we are acting for the petitioner in a land-taking, and have any doubts about the constitutionality of the law. We file our petition for damages without waiving our right to test the constitutionality of the act, and we file a bill in equity at the same time, and prosecute both remedies concurrently.

What I mean by this proposition is that, upon the question of damages, we can only get those given by the act; we cannot get any other measure of damages; and, if the act itself is constitutional, then the only measure of recovery is that given in the specific language of the law, the benefit of which we have sought by our petition.

That question has been adjudicated several times by our State courts in cases closely analogous to this. The earliest is that of *Dorgan v. Boston*, 12 Allen, 223, followed by *Bancroft v. Cambridge*, 122 Mass. 438. In both of those cases the court had before them the construction of statutes authorizing a surrender of property. Where, for instance, a street is widened and a portion of the estate taken, the owner of the estate has an option to surrender the remainder. That is a law which affects street-widening operations in the city of Boston, and its provisions have been from time to time applied to street widening and other similar operations in other parts of the State.

Now the Courts have held under that statute that the petitioner is bound, if he takes advantage of it, by the compensation that is provided for him in the act, notwithstanding that if he had not elected to take advantage of the law, he might have got a different measure of compensation. I will not occupy the time of the Commissioners in reading from these decisions at length, except to quote from the opinion in *Bancroft v. Cambridge*, this sentence: "Having elected to avail himself of this option, he must take his compensation according to the provisions of the statute."

Now those statutes are strictly analogous to the Municipal Lighting Law, in furnishing an opportunity to the individual to surrender his estate; and the cases cited are conclusive

authority that when that privilege is extended to a citizen, or a corporation, as the case may be, and he avails himself of it, he is bound by the compensation expressly given him in the act, notwithstanding the fact that he might perhaps have had the benefit of a different measure of recovery if he had elected other means of redress.

Finally, in the Wakefield Municipal Lighting Case, a case arising under the Municipal Lighting Act itself, the point was raised that the Company should be entitled to a jury trial, on the ground that its property was being taken, and, as is well known, our constitution provides for a jury trial wherever the property of the individual is taken by eminent domain. The Court, however, held that that provision of the constitution had no application to a case arising under the Municipal Lighting Law, because there was no taking of the Company's property. Article XV. of the Declaration of Rights has, says the Court, no application to a party who comes voluntarily under the provisions of a statute which provides for the determination of his rights and obligations in another manner than by a jury trial.

So in a more recent case, which I regret to note—I had not thought of it before—is not upon the brief. Probably both Mr. Commissioner Bumpus and Mr. Commissioner Cotter will recollect that under the Metropolitan Water Act a double process of recovery is allowed, in the one case going to a jury, in the other case going to a commission. Now circumstances can arise by which a party has his election, and it has been held in a recent case that if he elects to go before the commission in the first instance he is precluded from the remedy that he otherwise would have had in going before a jury.

The third proposition of an elementary character is that the purchase clauses of the act are in case of doubt to be construed against the Company. The sale and compensation clauses of the Municipal Lighting Law are, we contend, in the nature of a privilege or franchise granted by the State to a private individual or corporation, as the case may be, and are as such subject to the rule of strict construction. This, of course, as a general principle will not be disputed, and I will not take up the time of the Commission in commenting on it.



Mr. BROOKS. I would like to suggest, Mr. Matthews, that if you have cases on your brief that you are not referring to as you go along — I do not think this makes any difference — but in the future — I would like to call to your attention the fact that I expect to reply to you some time in the future —

Mr. MATTHEWS. We will see that you get it before you reply.

Mr. BROOKS. That won't help me much unless I get it as we go along. I do not care about it now.

Mr. MATTHEWS. I guess I can get it for you Monday morning. Will that do? That is, before we close anyway, if that will do. I do not want to hand it to you in its present fragmentary state.

Mr. BROOKS. What I am speaking of is this. If you are relying on certain cases to which you call attention generally, it seems to me that I am entitled to the name of the case, in order that I may examine it.

Mr. MATTHEWS. I will endeavor to furnish my brother with a copy of this brief at least two days before he replies. I think that is the best we can do. I do not want to hand it over in its present fragmentary shape.

Mr. BROOKS. I do not ask for the brief. If you rely upon cases, I wish you would give me the name of them.

Mr. MATTHEWS. I do not want to take the time of the Commission in calling attention to all the authorities cited in this brief. I would rather adopt some other course. It does not seem to me to be a proceeding calculated to facilitate the course of the argument, or to aid the deliberations of the Commission, or to aid my brother in replying. I think he should have the opportunity, and a reasonable opportunity, to see it before he makes his reply, and that we will see that he has.

Now this proposition will of course be conceded as a general rule of constitutional law. The only question can be as to its application to a municipal corporation. We contend that a municipality, or any section or portion of the general public, is entitled to the benefit of this rule, and in a contest between it and some private individual or corporation to have every public statute or private act granting a privilege or franchise to the company,

construed strictly against the company and in favor of the municipality. We have, therefore, gone into this question with more care than would otherwise have been appropriate in the presentation of such an elementary proposition as this, for the special purpose of ascertaining the extent to which this rule has been applied in favor of municipal bodies; and we found it to be, I think, the uniform rule, that a municipal corporation stands as part of the public. It stands, with reference to the application of this rule, simply as a political sub-division of the Commonwealth, and is just as much entitled to the protection afforded by the rule of strict construction as the United States Government itself or the Commonwealth of Massachusetts.

The people of Holyoke are the public. They are the only section of the public which is interested in this question; and therefore the protection of this fundamental rule of statutory law, as applied in the United States, and also, by the way, in England, insures to its benefit. The protection of this rule of construction is extended by the Courts to towns and cities and counties or public corporations of whatsoever character, representing either the State as a whole, the United States as a whole, or any of the smallest political sub-divisions of either.

There is no color for the contention, if it be made, that the rule of strict construction works in favor of the United States or in favor of a State, but does not work in favor of a town, a city, a county, a fire district, or some other minor political sub-division. The authorities upon that subject will be found collated and analyzed in our brief. And the rule applies, it will be found, to every kind of a statute, to every sort of a municipal ordinance, to every contract, franchise, or privilege howsoever enacted, whether by the Legislature itself or by a Board of Aldermen or other municipal authority acting as delegates of the Legislature. The inhabitants of all political divisions of the State are regarded by the Court as equally entitled with the people of the State at large to the full benefit of the rule.

That is the general principle upon which we rely, Mr. Chairman, with great confidence, for a favorable decision of many of the controverted issues in this case. It would be foolish to assert that this Municipal Lighting Law was wholly free from

ambiguity. It is one of those laws which, while on the whole capable of a consistent and harmonious interpretation, still bristles with difficulties. It was evidently passed in its final form as the result of the conflicting and antagonistic efforts of the towns on the one side and the corporations on the other, while the bill was on its passage through the committee. It bears, particularly the purchase clause, the ear-marks of the pulling and hauling which goes on before a legislative committee, one side getting in one clause on one line and the other side getting in some compensating provision in the next line.

This Act was passed, like many other acts, just in that way; and it bears the ear-marks of that process on its face. Notwithstanding that, we think that we shall be able to satisfy you that it imposes upon its face a certain definite rule of valuation. But if there is any doubt,—and we should be the last to suggest that there were no doubts suggested by the language of that law—they must in every instance, if your Honors please, be decided against the Holyoke Water Power Company; or else this Court must overrule the law of statutory construction and must hold that a municipality is not entitled to the rule of strict construction in a case like this.

There is one other reason why this law must be construed strictly against the Holyoke Water Power Company and in favor of the City, and that is that in one aspect of the case this law and the action taken under it by the respective parties has resulted in the creation of a contract relation between them. No one would dispute, I suppose, that a contract solemnly entered into between a private and a municipal corporation is within the rule of strict construction. The authorities are overwhelming upon that point. That the relation is a contractual one may, however, be brought in question. It is not wholly clear, but I submit that there is much from which a contractual relation can be spelled out. The law itself was on the statute books. The City took advantage of it, the final step being taken by the vote of Dec. 30, 1897. The Company had then, by the terms of the statute, thirty days in which to offer its property to the City. It exercised that option upon the 8th of January, and on that date, or at least on the expiration of

thirty days from the final vote, namely, on the 30th of January, the last day on which the Company could withdraw its offer, if it had the right to withdraw it at all,—on one of those dates, January 8 or January 30, the relations between the parties became fixed, so that neither could withdraw without the consent of the other. And the whole transaction, then, amounted to this: an offer by the City of Holyoke to buy the works of the Company if they were offered upon the statutory terms, and an acceptance of that offer by the Holyoke Water Power Company. We thus get, it seems to us, the elements of a common law contract, and for that additional and special reason all the provisions of the Act are to be construed, in case of doubt, against the Company.

The attempt to place this proposition upon a contract footing finds judicial support in the case of the *Braintree Water Supply Company v. Braintree*, and in the case of the *Hudson Electric Lighting Company v. Hudson*. 146 Mass. 482 is the Braintree case; 162 Mass. 346 is the other.

The Hudson case arose under this very statute, by the way, and in it the Court held that the town had no right to withdraw after the expiration of the thirty days, the Company in the meantime having elected to offer its property to the town. In the Braintree Water case, the Court had more occasion to consider this relation of contract. I think the procedure was inverted in that case, the offer having been made by the other party; but the principle is the same. The Court says, "The legal relation of the parties was as if the corporation had made in writing a continuing offer to sell, at a price to be subsequently agreed upon by the parties, and in default of agreement to be fixed by commissioners. The vote of the town to buy was an acceptance of the offer, which completed the contract. The rights of the parties were then the same as if both had signed an executory contract, binding one to sell and the other to buy, at a price to be agreed between them, or determined under the statute." In other words, the Supreme Judicial Court of this State has construed a transaction of this kind as strictly analogous to the creation of a common law relation of contract; and if that is so, it constitutes an additional

and special reason for the application of the rule of strict construction, because no one could dispute the proposition of law that a contract between a private corporation and a municipal body, a county, town, city, fire district or the State itself, is, by the decisions of the United States Supreme Court, to be construed strictly against the corporation.

But wholly apart from that suggestion, we contend that the general rule of law covers this case; that the purchase clause of the Municipal Lighting Act is a franchise or a privilege extended by the Legislature in its wisdom to private individuals and corporations, who find themselves confronted by municipal competition; and that if they take advantage of that privilege or franchise, it is to be strictly construed.

Before passing from this part of the case, I desire to say a few words as to the practical effect of the law. I suppose my brother will dwell, as counsel in such cases usually do, upon the ruinous effect of municipal competition. I believe that to be the expression which is used upon such occasions, and of course there is this to be said in its support, that it is possible to conceive of a public competition which would, in fact, be ruinous to private enterprise. As has been said by the Chief Justice of our Court in one of these cases, the Legislature might authorize a public competition upon such terms as would involve the ruin of any competing private industry; but our Legislature has done nothing of the sort, absolutely nothing. It has made no attempt to interfere with the franchises, no attempt to interfere with the business of this or any company that comes within the purview of the Municipal Lighting Law. It interferes with it in no way whatever, except to the extent that a public plant organized and supported out of the public treasury would, in fact, create a competition of more or less serious character. But the Legislature has seen fit to hedge municipal operation around with so many safeguards and so many difficulties, that private corporations have very little to fear from the effect of any competition upon public account, inaugurated under the auspices of the Municipal Lighting Law. For instance, the operation of public plants is subjected to all the public labor statutes of the Commonwealth, and they are nu-

merous, and add to the expense of operating a gas works or an electric light plant, when run upon public account, a very serious annual burden, not assumed or felt by private corporations.

In the next place, a city or town operating a municipal plant is obliged by the terms of the law to lay aside annually 5 per cent. for depreciation, 5 per cent. upon the entire cost for land, buildings, and machinery, and also the interest on the bonds and the sinking fund requirements, substantially 5 per cent. more. All these requirements must be taken into account before there can be any reduction of the price to consumers. That is not the exact language, but that is the effect of Section 10 of the Act of 1891. Now what is there to fear from public competition under an act like that? How much can the City of Holyoke, for instance, reduce rates, when it is bound by law to lay aside 10 per cent. per annum on the cost of the entire plant for interest, sinking fund requirements, and depreciation, and to pay for the operation of the plant upon a pay-roll affected by labor statutes and extra-commercial wages?

It is not by any means certain that, even if there were unrestricted public competition with the private corporation operating in the same field, there would be any ruin to one or the other. One would suppose, from the arguments that one hears upon this subject, that the moment that a public plant is started every private industry of the same sort in the same condition files a petition in insolvency. Nothing of the sort could be further from the truth than that. We have here in Massachusetts four towns — Peabody, Needham, Wellesley, and Chicopee — where public and private electric light plants are being operated in competition with each other, as may be seen by an inspection of the reports of the Gas Commission. There are nine Massachusetts towns in which private gas companies are operating, notwithstanding the existence of municipal electric light plants. There are thus twelve communities in Massachusetts alone in which competition exists to-day under this very act, or in spite of it, between public and private plants. A similar condition of affairs obtains in Chicago, and in Detroit, as is matter of common knowledge, and in other parts of the world.

I remember at one stage in this very hearing when something was said by one of the witnesses for the Company upon this line, noting, that very day, in the paper, a telegram or a news item from Hamilton, Ohio,—and, as your Honors well know, Hamilton has been the scene of municipal ownership upon a notorious scale,—and this item indicated the complaint of the municipal plant against the establishment of a competing private industry. The boot was on the other leg in that case.

Mr. BROOKS. Is that in evidence?

Mr. MATTHEWS. No.

Mr. BROOKS. You adopt it as part of your argument?

Mr. MATTHEWS. Yes.

Mr. BROOKS. Well, that gives me a precedent that I am glad you have established.

Mr. MATTHEWS. Oh, well—

Mr. BROOKS. I was wondering how I was going to do it, but I see now.

Mr. MATTHEWS. Now we have this actual competition, not only in Massachusetts in the twelve cases that I have mentioned, but we have it between gas companies and electric light companies all over the State, and we have it generally throughout the world. There is nothing in it; it is nothing but a bugbear. If there were anything in it, if there were anything in this suggestion that the action of the City of Holyoke or of any other city or town under this statute means ruin or disaster to the financial interests of the Company, it is a consideration which a court of law cannot take into account. It is a consideration which the Legislature might properly consider, and which the Legislature did consider, and in view of which the Legislature passed a law, the very law under which this case is being tried. But it is incompetent for any purpose to depart from the obvious meaning of the statute, to grant any consideration to the Company in any way, shape or manner, founded upon the untenable claim that public competition may result in private ruin. As stated by the Supreme Court of Pennsylvania in the appeal of the Lehigh Water Company, 102 Pennsylvania State, 515, such an argument as addressed to a court of law is "wholly without merit."

I commend that judgment to the consideration of this tribunal, as well as to the attention of my brother, and will pass to the discussion of the terms of the act itself.

The first question to be considered is the nature of the property to be transferred and valued. The Commissioners are first to determine what property shall be conveyed by one party to the other; and secondly, they must determine its value. Presumptively, therefore, they cannot value anything that is not to be transferred; or if they do, it can only be for some incidental and collateral purpose. Broadly speaking, the proposition, I take it, will not be denied, that the questions of valuation are co-extensive with the questions of transfer, and that the Commissioners, before they determine the value of anything, must determine whether that thing is to be transferred under the act. If it is not to pass from the Holyoke Water Power Company to the respondent, it is not to be made the subject of the deeds which this Commission will recommend, it is not to be included in the transfer, and it is not to be the subject of valuation. So the first thing for the Commissioners to determine is what property shall be transferred; in other words, what property is the City of Holyoke bound to take. In the consideration of that question I found it most convenient—and I commend the process to your attention for the same reason—to attempt to solve it by a process of elimination. It is sometimes easier to find out what we can do by considering what we cannot do, than it is to approach the subject the other way. And I have found it most convenient in this case to consider, first, which of the things that have been suggested in this case cannot be the subject of valuation by this tribunal, because they are not to be included in the transfer from the Company to the City.

The first and most important is, perhaps, the Company's franchises; that is, its rights to occupy the public streets. The petitioner in this case, the Holyoke Water Power Company, has, of course, other franchises of great value which are not involved in this case at all. It has its right to be a corporation, which is not affected. It has its water power rights, the right to maintain its dam, and to divert the waters of the



Connecticut River into its system of canals. It has its right to charge for water thus diverted and for the power thus created. It has its land, and it has many other items of property and many other privileges in the nature of franchises, perhaps, which are not involved in this case at all. But it has two franchises which are involved in this case,—at least in certain aspects of it, although not, as we contend, the subject of consideration under the Municipal Lighting Law. They are indirectly involved, however, to the extent that they will be, or have been, affected by the action of the parties to this case. I refer to the franchise of the Company to manufacture and distribute gas and electricity in Holyoke, and to the franchise of the Company to open and occupy the public streets for that purpose. The first is a mere corporation franchise; that is to say, it is a right inherent in any individual, but not in any corporation without special permission from the Legislature. The citizen requires no charter from the State to run a gas or an electric light business. A corporation which is chartered by the Massachusetts Legislature does. That is to say, unless its original charter, or some amendment to it, authorizes the corporation to engage in some particular business, it has no right to do so, according to the principles of corporation law. That is the first of the franchises, or public privileges, which the Holyoke Water Power Company enjoys, which have been or will be affected by the action of the parties or the Commissioners in this case; but the other is the important one, of course,—the right to occupy the public streets.

Now these rights do not pass to the City of Holyoke at all,—a point I desire to impress upon the Commissioners. The City of Holyoke does not get the franchises that the Holyoke Water Power Company now enjoys, in respect to either the general conduct and transaction of the gas or electric light business in Holyoke, or in respect to the use and occupation of the highways. Section 15 of the Act of 1891 provides that “Whenever the existing gas plant or electric plant of any person or corporation shall have been acquired by any city or town pursuant to the provisions of this act, the powers and rights of such person or corporation in relation to the manufacture

and distribution of gas or electricity within the limits of such city or town shall, from and after the date of such acquirement, cease and determine." That, may it please the Commissioners, is one of the most important clauses in this law and one in which this law differs from the other statutes under which there have been recent valuations by judicial commissions. In the Newburyport and Gloucester cases, the "rights and privileges" of the Company were to pass to the City; and there was a special clause that the Commissioners should not include the "franchise" of the Company in the valuation. The same end has been attained in this case, but by a different process,—the process here being to cause these franchises to cease, to go out of existence, and not to pass to the City at all. What does the City get, then, it may be asked. The City must have some right to operate a gas business and electric light business in Holyoke, or the law itself is nugatory. The City does procure a franchise, or a license, whichever it be termed; but it procures it directly from the Legislature. Sections 9 and 10 of the Act of 1891 are those which define the right, privilege or franchise which the City of Holyoke, or any city or town operating under the act, is to enjoy in the premises. And if the Commissioners will read those sections, particularly Section 10, they will note the great difference between the franchise conferred upon the City of Holyoke and that previously enjoyed by the Holyoke Water Power Company. The principal difference lies in the restrictions imposed upon the City in respect to price. Other gas and electric light companies are permitted by their franchise to charge any price they see fit for gas and electricity, subject to the general jurisdiction of the Gas Commissioners, under the Act of 1885; but towns and cities operating under the Municipal Lighting Law are subject to the further limitations and restrictions imposed by Section 10 of the Municipal Lighting Act, which I had occasion to call your attention to a moment ago. That section provides for a limitation of price, according to a certain formula or rule of computation which involves, among other things, the laying aside of 10 per cent. above the cost of operation, but no more. A city or town operating under the Municipal Lighting Law can not make a larger manufacturing profit than that,

whereas gas and electric light companies in this State can make anything they choose, until prevented by the Gas Commission. You will find instances on record, by looking at the reports of the Gas Commission which are in evidence, of gas companies which have made a manufacturing profit of 125 per cent., as was the case with Haverhill in 1899; and from 28 per cent. to 30 per cent. right straight along, as is done by the Electric Light Company of Worcester; and so on. There is nothing to stop a private corporation in this State from making anything it chooses until the Gas Commission sees fit to interfere, under its jurisdiction over prices. But a municipal corporation is not only subject to the interference of the Gas Commission, but also to the limitations of Section 10 of the Act of 1891. Thus the franchise that the City of Holyoke gets under this act is not only not the franchise that the Holyoke Water Power Company had, but it is something that isn't worth half as much. It is totally different and much less valuable.

Even in the Newburyport water case,—which was a case decided under a statute which provided that the “rights and privileges” of the company should pass to the city,—the Court, through the Chief Justice, said that the franchise of the City of Newburyport was not the franchise of the Company, but was obtained directly from the Legislature, and quoted the previous decision of the English Courts upon a similar state of facts where (in the Edinburgh Tramway case) the Lord Chancellor said, “It is the statute, and not the company which originally constructed the [works], which confers upon the local authority this right.” Thus we have the English Courts holding that, under a statute upon which this Municipal Lighting Law was modelled, the franchise under which the City operates is derived directly from the State and not from the Company at all. We have the Supreme Court of Massachusetts holding that that is so, even under an act which provides that the “rights and privileges” of the Company shall vest in the City. But in order to make the thing absolutely certain, the Legislature of Massachusetts, in framing the Municipal Lighting Law, provided that all the franchises of the corporation should not pass to the City at all, but should determine absolutely, and then proceeded

to grant other franchises to the City, wholly distinct in character and much less valuable in operation. Thus, whatever be the temptation to work in a franchise valuation into any part of this case, whatever be the drift of argument or of evidence tending to render it difficult to distinguish between a property and a franchise valuation, I trust that the Commissioners will bear in mind, from the beginning of their deliberations to the close, that the Legislature of Massachusetts has not transferred the franchises of the Holyoke Water Power Company to the City of Holyoke; that we shall never enter upon the enjoyment and possession of those franchises, but shall be obliged forever, so far as we can see, to operate this property, when we get it, under different franchises, which have been conferred upon us directly by the Legislature, and which are very much less valuable in character than those previously enjoyed by the Company.

The Legislature, might, of course, have expressly said, as it did say in the Newburyport and Gloucester acts, that the Commissioners should exclude the Company's franchises from consideration; but it has done something more explicit and conclusive still, in this case. It has provided that those franchises shall not go to the City, that the City shall never have or enjoy them, but that they shall cease and determine forever by the voluntary surrender of the corporation upon the day that the Company transfers its plant. The essence of this act, Mr. Chairman, can be stated in two simple words. The Company elects to sell its plant to the City and to surrender its franchises to the State. These, therefore, are not to be included in the transfer or in the valuation.

Before passing from the question of the Company's franchises, I desire to call attention to certain facts, which may, or may not have, a bearing upon some of the issues in this case. In the first case that arose under the Municipal Lighting Law, the Wakefield case —

Mr. BROOKS. Give me the numbers of the decisions that are cited, please.

Mr. MATTHEWS. The Wakefield case is 161 Mass. 432.

Mr. BROOKS. I have got it somewhere, but it saves me trouble, and I will do the same with you every time.

Mr. MATTHEWS. If I do not, interrupt me.

Mr. BROOKS. Well, I don't like to interrupt you —

Mr. MATTHEWS. It is all right, I don't mind.

Mr. BROOKS. — because I don't like to be interrupted myself.

Mr. MATTHEWS. In the Wakefield case it was claimed by the City that the Commissioners had no jurisdiction to value the Company's plant, because the Company had never perfected its franchise rights. The Court did not consider that point well taken, and held that as there was nothing but property anyway to value under the act, it did not make any difference whether the Company had perfected its franchises or not, and directed the cause to proceed before Commissioners.

Now, in this case, we contend that the Company never perfected its legal right to do a gas or electric light business in the City of Holyoke, either one or the other. We do not claim that that failure to procure a franchise to operate a gas or electric light works in Holyoke, estops the corporation from compelling the City to take its property or prevents the Commissioners from valuing that property in this case. Understanding that nothing but property anyway is involved, we do not see that it makes any difference to us whether the City of Holyoke had a legal franchise or not; and therefore we do not set up that failure to perfect their legal rights as a reason for the inaction of this Commission in regard either to the transfer or the valuation of the property of the Company. But whenever anything about franchises is suggested in this case, as was done by all the witnesses for the Company, and as doubtless will be done by my brother in his argument, I trust that the Commissioners will bear in mind the difficulty of discovering these franchises. They never had any. The Holyoke Water Power Company never had a lawful right to sell a cubic foot of gas in Holyoke, or to distribute a kilowatt of electricity.

What is the law upon this subject, and what did the Holyoke Water Power Company do to comply with it? The Holyoke Water Power Company was chartered by a special act of the Legislature in 1859, and that act said nothing about

gas or electricity. It authorized the incorporators to procure the property and franchises of the Hadley Falls Company, then in the hands of receivers, and it contained no special authority to engage in the gas business, much less the business of electric lighting, which at that time was unknown.

The gas business, however, was at that time a well-known industry. It had been established in Massachusetts in 1822, in the city of Boston, and had been taken up by the Hadley Falls Company in Holyoke about the year 1849 or 1850. So that at the time the Holyoke Water Power Company was incorporated and took over the property of the Hadley Falls Company, the latter was actually doing a gas business in Holyoke, although having no legal right to do so under its charter, and that business went over, with the other assets of the receivers, into the hands of the Holyoke Water Power Company.

They went along in that way, without any authority whatever in their charter, and doing everything that they did in the way of furnishing gas to the inhabitants of Holyoke *ultra vires* of their charter, for fourteen or fifteen years; and then, in 1873, for some reason or other, they woke up to the fact that they had no legal right to do a gas business in Holyoke. So they went to the Legislature and got an amendment to their charter in Chapter 52 of the Acts of 1873, which ratified the prior doings of the Company in the manufacture and sale of gas in the town of Holyoke, thus purging the corporation from the charge, if it had been brought by the attorney-general in proceedings for the dissolution of the Company, that it had acted *ultra vires* of its charter, and covering the future by authorizing the corporation to manufacture gas in the town of Holyoke for the purpose of selling the same for light in said town, with all the rights and privileges and "subject to all the restrictions of gas light companies under the general laws."

Now, under the general laws of the Commonwealth, which were then and are now in force, relating to gas companies, the consent of the selectmen of the town, or, since the organization of a city government, of the mayor and aldermen was necessary, in order to give the Holyoke Water Power Company any right to open the streets of Holyoke, from and after the date of the

passage of the special act of 1873. No such consent was ever procured. There is no evidence in the case that the City of Holyoke, or its predecessor, the town, ever gave the consent required by that act. Therefore the Holyoke Water Power Company, as we contend, has been doing an illegal and *ultra vires* business, so far as the manufacture and distribution of gas is concerned, ever since it was incorporated, or at least since 1873.

The case of the Company with respect to electric lighting is in substance the same, but for different reasons. The business of electric lighting was begun by the Holyoke Electric Light & Power Company, in 1884. The stock of that Company was held in trust, according to my brother's statement, for the Holyoke Water Power Company, and in 1888 the property was transferred to the latter corporation. The act of the Legislature, putting electric light companies under the jurisdiction of the Board of Gas and Electric Light Commissioners, the statute of 1887, provided that no gas company — and that was defined as meaning any company operating a gas works — should be authorized to do an electric light business without receiving the consent of the Board of Gas and Electric Light Commissioners, and that that consent should be filed with the secretary of the Commonwealth. That is to say, a certificate should be filed with the secretary of the Commonwealth, for the purpose of giving information to the general public, which certificate should incorporate the consent of the Board of Gas and Electric Light Commissioners.

The Company proceeded so far as to get the consent of the Board of Gas and Electric Light Commissioners, by an order passed March 30, 1888, practically simultaneous with the transfer of the Electric Light & Power Company's property. But the provision of law that the Company so authorized should file in the office of the secretary of the Commonwealth a certificate as provided in the Public Statutes, was not complied with until after the commencement of this suit, and until the omission to do so had been called to the attention of the Company by counsel for the City in this case. That certificate was not filed until the 5th day of May, 1899, a fact which is established by the evidence on p. 222 of Vol. V.

Under our view of the construction of the Municipal Lighting Act, it is, as I said, a matter of very little consequence whether the City of Holyoke was doing a lawful or an unlawful business. It had certain property, and that property we must take at a valuation fixed by the Commission, regardless of whether or not the Company had obeyed the law between 1859 and 1898. But it seems to us proper to call attention to the fact that the Company never had any legal right, so far as we can see upon the evidence in this case, to do a gas and electric light business in Holyoke, that it never had a legal franchise to open or occupy the streets of Holyoke for the purpose of distributing gas or electricity, whenever anything is said about the great value of the franchises or earnings of the Holyoke Water Power Company in this case.

I conclude, therefore, that the franchises of the Company, the right to do a gas and electric light business, the right to occupy the streets for that purpose, to open and lay gas pipes in them, to erect electric light poles on them, and to string wires along them — that these and every other right, privilege or franchise granted by the Legislature, or assumed to have been granted by the Legislature, to the Holyoke Water Power Company, are not the subject of valuation in this case, directly or indirectly, openly or surreptitiously; because they do not pass to the City of Holyoke, but are surrendered by the voluntary act of the corporation to the State from which they came.

The next question in my process of elimination relates to property which is not offered by the Company, but which may be used in and about its gas and electric light business. The statute apparently contemplates that the Company shall offer its property, its plant, its gas plant, its electric light plant, its property and plant — the two words are used indiscriminately and indeterminately throughout the act. Now, *prima facie*, and on the face of it, that would seem to indicate that the Legislature intended corporations to offer all the property that was used by them in the gas and electric light business — the whole of it. But I suppose it is possible to conceive of cases where it might be uncertain whether some particular part of the Company's property was reasonably necessary for the gas or elec-



tric light business or not ; and in such cases I do not know but the Company would have an election to withhold such portions of its property as might actually be used in its gas or electric light business but which might not be absolutely essential for that purpose, leaving the weight to be attributed to the omission to be determined by the Commissioners upon the evidence in the case.

For instance, there cannot be any doubt that the Holyoke Water Power Company is using its office, the general office of the Company near the railroad station, in its gas and electric light business. The bills are made up there and they are paid there. But the Company does not offer us that office, and I do not know that we can take advantage of that exception or omission. We do not seek to. Provided the property that they do offer us can be operated for gas or electric light purposes, I do not think that we can complain if the Company has not seen fit to offer additional property which is used in fact, but which is not absolutely necessary. We can get an office somewhere. We can go outside and hire one, or we can build one after we have got these plants.

In other words, it does not seem to me that the act contemplates literally that every single piece of property that is used as a matter of fact in the gas or electric light business should be included in the offer ; and, if that is so, it must follow that the Commissioners have no jurisdiction to go outside the offer and to include in the transfer property which might have been included by the Company in its offer but which in fact has not been included in the offer.

For what would such a course mean ? What would the assumption of such a power of jurisdiction on the part of the Commissioners in these cases really mean ? It would mean, it seems to me, to arrogate to the Court, through the Commissioners in the first instance, a power to expropriate the Company's property or some portions of it ; it would mean the condemnation of the Company's property, or some portion of it, against its will ; and for such a course there is no authority in the act. The whole scope of this law is a voluntary surrender by the corporation of its property, and there is no au-

thority given to the City of Holyoke or to the Commissioners to take the property of the Company, or any part of it, against the Company's will.

The conclusion that we reach, therefore, is that if the Company declines to include in its offer any part of its property which is or happens to be used for the purpose, the Commissioners cannot supply that deficiency and fill the omission by including it, but they must take the offer as it stands and value the property as it is offered, having regard, of course, to any diminution in value caused by the omission. If the omission of the Company should be so serious as to materially affect the value of what is offered, then a further question may be raised as to whether the part offered was suitable for the business; and if not suitable the Commissioners should throw it out entirely and decline to make any award in the case.

I do not say that the right of omission has been carried to that extent in this case. I merely suggest that if it had been carried to that extent the result, the conclusion necessarily to be adopted by the Commissioners, would be a decision that the City should not be obliged to take any part of the property offered, because without what was omitted it would be unsuitable for the purposes of its use.

The suggestion that the Commissioners have no power to include anything that the Company deliberately omits, while not available to us along the line of the illustration which I just presented, must still be considered by the Commission, I think, when it comes to the question of the water power; but I will leave the matter here for the present, taking up the question of water power by itself at a later stage of the argument.

Having considered what should be done with property which is not offered by the corporation, and having concluded that the Commissioners have no jurisdiction to include it, the next question is, what is to be done with property which has been offered by the Company upon set terms or upon conditions which the Commissioners are not at liberty to vary? That point, which may become one of great materiality to the decision in this case, I should prefer to pass for the present,—although logically it should be considered here,—until I hear

from my learned brother just what the position of the Company is with respect to the water power used to operate the electric light plant.

The next point to which I desire to call the attention of the Commission in considering what is to be transferred from one party to the other, relates to the suitability of the plant or any of its several parts. The whole scope of the law, from its first framing in 1891 to the present time, has been to protect the municipalities against being forced to buy property which is not suitable for the gas or electric light industry. And, accordingly, we find in the Act of 1891 a provision in the purchase clause, namely, Section 12, limiting the property which the Company might force the City to buy to that which is "suitable and used" for the business of generating gas or electricity in such city. In 1891 that was thought sufficient, but as you know the act was considered ambiguous in its first shape and was amended in many important particulars in 1893. And at that time this point was also made clearer and the rights of towns and cities were still further protected against having forced upon them property or plant which was not adapted to or suitable for the gas or electric light business by the retention, in the first place, of the words which I have just quoted from the Act of 1891; and by the insertion of a new and separate clause. The city is not to be "obligated,"—I believe that is the language of the act,—

"to buy . . . any property except such as shall be suitable for the ordinary business of the vendor which the city or town may assume."

The Legislature of 1893 seemed to think that the language of the Act of 1891 was not strong or plain enough, and saw fit to fortify and amplify it in this manner, rendering it perfectly clear that it is the duty of the Commissioners in this case to exclude from the transfer, and consequently from the valuation, every portion of the property offered by the Company which is found by the Commissioners to be not suitable for the gas or electric light business, as the case may be.

During some of the interlocutory discussions, as our lamented friend, Mr. Goulding, would call them, that took place from time

to time during the progress of this cause, some intimation was made by counsel for the Company that the word "suitable" in this clause, whether in the Act of 1891 or the Act of 1893, or both, modified either "property" or "plant," I have forgotten which, but not the other, and not both. A very casual inspection of the act will satisfy the Commissioners that there can be nothing in that suggestion. The word "plant" is used in this one section 21 times alone; the word "property" is used alone twice, the expression "plant and property" four times, and the expression "property or plant" once. And in every one of these 28 uses of this combination of words "plant" and "property," the meaning is evidently the same. In one instance, for example, "plant and property" are referred to as "its"—not "their"; the word "its" is used, indicating that the expression "plant and property" was used collectively. These expressions, "plant," "property," and "plant and property," all three of them, are used indifferently in the same uniform sense throughout all the sections of the Municipal Lighting Law, and particularly throughout the provisions of Section 12 as amended in 1893.

I think the Commissioners are bound to conclude, as a matter of law, that they must exclude from the transfer everything offered by the Company which is not suitable for the gas or electric light business, as the case might be. And in passing upon the evidence, while they should not be asked to go out of their way to discover defects rendering the plant or any part of it unsuitable, still, if upon the evidence in the case they are fairly satisfied that any portion of this plant, particularly any portion of the electric light plant, is, for any of the causes that I shall now discuss, essentially and substantially unsuitable for the prosecution of the gas or electric light business in Holyoke, as those industries ought to be prosecuted in a commercial way, then it is the duty of this Commission to exclude from the transfer, and of course from the valuation, the property which is thus held to be unsuitable, irrespective of its effect upon the Holyoke Water Power Company. That corporation, if it finds itself in possession to-day of property which is unsuitable for the electric light business or for the gas business,

has only itself to blame for not having kept up with the times, for not having taken advantage of the progress of invention, as other corporations in Massachusetts and all over the world have done. If it finds itself in possession of the same sort of an electric light plant, for instance, that would have been installed in 1884, but which nobody would think of buying to-day, it has only itself to blame. And it has no legal and no moral right, Mr. Chairman, to ask the Commissioners to force the City of Holyoke to buy property which, if bought, must be thrown away to-morrow.

Now, sir, what does unsuitability consist in? Obviously, and on the face of it, unsuitability refers to the physical characteristics of the property. No one will dispute that. A machine to be unsuitable, *prima facie*, must be unworkable or relatively so expensive to work that nobody would buy it and nobody but the Holyoke Water Power Company would keep it if he had it. *Prima facie*, the unsuitability which would justify the Commissioners in excluding from the transfer any portion of the property offered should be a fact rendering the property, or some part of it, physically unsuitable for the economical production or distribution of gas or electricity, as the case may be.

I might mention some illustrations of the idea that lies in my mind as decisive of this question. All the buildings of the gas plant might be of wood, for instance. This is merely a hypothetical case for the purpose of illustrating the law and its meaning. The buildings might be of wood, an utterly improper construction, but the wood might have some value. Nobody would pay the cost of wooden buildings for a gas plant to-day; they would be built of brick; but they might still have some value, so that possibly such buildings could be used and would have a value for the purposes of their use, although a less value than the cost to replace them. I should not think in a case like that that the Commissioners would be justified in excluding the buildings.

The physical unsuitability must, it seems to us, be considerable and substantial, in order to justify rejection on that account alone. But, wherever you find that any portion of the plant is rendered literally or substantially unworkable, unsuit-

able, unusable, for any cause dependent on the action of the Holyoke Water Power Company, then you must exclude it as unsuitable. For instance, suppose that the water power is to be ignored, and eliminated from this case, either by the election of the Company itself or as a conclusion of law, what becomes of the water plant in that case? Is a water plant without any water power to run it by suitable for the production of electricity? We think not. That is an illustration,—not an extreme one, but one which may possibly arise in this case, and one which the Commissioners may have to face. I will say more about it when I come to consider the questions involving the Company's water power.

But not only may property be unsuitable by reason of its physical condition or the difficulty of using it, as in the instances that I have suggested, but, under the peculiar provisions of this law, it may be unsuitable by reason of purely pecuniary considerations; that is, by reason of the price at which it must be taken by the City. Ordinarily, no such question could be presented in a valuation case. The physical unsuitability of machinery or of buildings is in issue in every valuation case, we will say, although emphasized and made prominent in this case by the express injunction of the statute not to include in the transfer anything that is unsuitable. But pecuniary unsuitability—unsuitability by reason of the price—is a question which could not arise in an ordinary valuation case, because, in such a case, the Commissioners fix the price, and there is no set price at which the Commissioners must start. If certain portions of the property at a certain price would be too expensive to be suitable for the business in question, the Commissioners can eliminate the unsuitability by diminishing the price.

That, of course, is the usual rule, but it is not the rule in this case,—that is, in all its aspects.

For instance: suppose, by the terms of the act, you cannot fix the price of some portion of the plant at the figure which you think it ought to bring in order to make that portion suitable. Suppose, for any reason, some part of this plant must be taken at a price fixed, not with reference to the availability of

the property for the purposes of its use, but with reference to its use by somebody else, or with reference to some other consideration; then the power that the Commissioners would ordinarily have to correct any unsuitability by regulating the price, is absent. The Commissioners, if they include the property in question in the transfer at all, are bound, *ex hypothesi*, upon my assumption, to take it at a price fixed; and then they must consider whether, at that price, the property in question is suitable for the exploitation of the gas or electric light industry in Holyoke; and, if it is not suitable, Mr. Chairman, they must exclude it from the transfer.

You will find this to be an important part of your duties in passing upon the evidence in this case. It is a problem which, so far as my experience goes, has never yet arisen in any valuation case. I never knew a case in which the Commissioners or the Court or the jury could not fix the price to meet the ideas they have of value of the mechanical utility and value of the thing under valuation. But, as I shall show you before we are through, there are two circumstances — both of which may arise in the application of the Municipal Lighting Law to this case — in which the Commissioners have no power to modify the price, and therefore are forced to consider whether, at that price, the property in question is suitable — suitable in the ordinary mechanical and commercial sense — for the gas or electric light business, as the case may be. And if then, upon a fair consideration of all the evidence in the case, they conclude that this particular part of the property, at that price, is unsuitable commercially for the gas or electric light business in Holyoke, they have nothing to do under their appointment by the Court in this case, but to exclude that portion of the property from the transfer, and also, of course, from the valuation.

(Noon recess.)

### AFTERNOON SESSION.

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Mr. MATTHEWS. At the adjournment of the Court for lunch I was saying that in two aspects of this case and for two distinct purposes it might become necessary for the Commissioners to determine whether or not a portion of the plant was suitable within the meaning of that word as used in the act, having reference to the question of price, it being in this case assumed that the price is not within the jurisdiction of the Commissioners and must be taken at a fixed amount, either by force of the law or by the voluntary act of the Company. One of those instances would arise in case the Water Power Company takes the position that it has offered its water power conditionally ; that is, upon the terms and at the rent specified in the offer. As to that matter I shall say nothing further until I hear definitely from counsel for the Company as to the position of his client in that regard.

The other contingency in which the question of pecuniary unsuitability would be before the Commissioners, would arise if they find that the market value of some portion of this property for any purpose is greater than its market value for the purposes of its use. The Commissioners will recollect that the statute enjoins them then to award such a sum to the Holyoke Water Power Company as represents the fair market value of the property offered for the purposes of its use, limiting the value to that particular purpose. And that means in this case, of course, the value of the property for the purpose of the gas business or the electric light business in Holyoke, as the case may be. But the Commissioners will also recollect that there is another clause in the statute which provides that no portion of the Company's property shall be valued at less than its market value for any purpose, a clause to some extent inconsistent with what precedes. There is a general direction to the Commissioners to take the property at its value for the gas or electric light business, and then there is an injunction that you



shall not value any part of it at less than its value for any purpose. Now if those two clauses stood by themselves it would be almost impossible to say what the Commissioners should do, being radically inconsistent theories or bases of valuation ; that is to say, if in the case of any part of the property in question, the Commissioners should find that it had a general market value, a value for some purposes, greater than its value for the gas or electric light business.

I shall have more to say as to the meaning of that clause and as to the apparent conflict between those two clauses in the statute later on ; but at the present point I desire simply to suggest that if some portion of this property is found by the Commissioners to have a higher value for some other purpose than it has for the gas or electric light business, then the Commissioners must exclude it from the transfer, if at that price it is unsuitable for the gas or electric light business.

In these ways pecuniary unsuitability may — I do not say that it does, but it may — become in this case, while it would not in any ordinary valuation case, a matter which the Commissioners cannot adjust in the award, but must adjust by exclusion.

The three clauses in this act together work out a harmonious conclusion. First, you value the property at its value for use in the gas or electric light industry. Second, if you find that some portion of it has a greater value for some other purpose, but at such greater price is unsuitable for the gas or electric light business, you cannot award the lower value, but you must leave it out altogether as unsuitable. Such a course works no injustice to the Company, because if this portion of the property is more valuable for some other use than it is for the gas or electric light business, then, *ex hypothesi*, the Company can secure that greater value if it is omitted from the transfer. If, on the other hand, the Company could not secure that greater value, if omitted from the transfer, by sale to somebody else, then that greater value does not exist, the hypothesis falls to the ground, and the whole difficulty disappears. We shall have occasion to apply this construction more in detail later on. Its principal application, however, would, as I suggested, be to the

question of water power in case the Company sees fit to take the position which we understand it has intimated it will take.

Let me, in passing, suggest one illustration, drawn in the air, so to speak, suggested by the type of illustration of which our friend, Mr. Goulding, was so fond. Let us take a horse, a valuable driving horse, worth, we will say, \$500 as a gentleman's driving horse, which the Holyoke Water Power Company was using as a matter of fact for its lamplighting business. Some of the lamplighters, I presume, use wagons in Holyoke, as they do elsewhere. A \$125 or \$150 horse would be ample for that purpose,— would be all that was required. Suppose, however, as a matter of fact —

Mr. BROOKS. The City owned the horse, Mr. Matthews, because the City did the lighting.

Mr. MATTHEWS. I am talking for illustration, simply. Suppose the Gas Company was doing the lighting of the streets by means of a horse which was of greater value for some other purpose, than it was for the business of lighting the streets; then these three clauses of the act, taken together, enable the Commissioners to settle the difficulty very easily. The horse would be worth for the purposes of the gas business, \$150, and no more. It would be absurd to award any more, because that is all the horse would be worth for that business, and the statute says that the property shall be valued for the purposes of its use. But that horse could be sold, *ex hypothesi*, to somebody else for \$500, being a gentleman's rapid driving horse, and under those circumstances the Legislature thought that it would not do to award only \$150. Now, what shall be done under those circumstances? There is so far an irreconcilable conflict between two clauses in the act. And then comes the third clause to help us out of that dilemma, inserted by the Legislature of 1891, and reinforced in the Act of 1893. That horse at \$500 is not suitable for the gas business, therefore it is simply left out of the transfer and valuation altogether. The Company keeps it, sells it to anybody else, if it wants, for \$500, and gets its full value that way; or keeps it and uses it for other purposes and gets its full value that way; the City does not take it at all; and no injustice is done to any one.

That illustrates the manner in which the Legislature intended the Commissioners to use these three clauses, to prevent injustice to either party in this transaction; the result being that the City pays no more for the property than its value for the gas or electric light business, but if there is any portion of the property that has a higher value for some other purpose, and at that price it is unsuitable for the gas and electric light business, it is left out of the transfer altogether, and the Company gets its full value by retaining it.

I will ask the Commissioners, in considering this clause,—and it may have application to two or three matters in this case apart from the water power, although that is its chief application,—I will ask the Commissioners, in considering it, to bear in mind the order in which these clauses appear in the act as amended in 1893; and I think they will be able to spell out of that act, a consistent and harmonious result, which will work no injustice to either party.

I come now to another deduction which we ask the Commissioners to draw, and which has a most important bearing upon the rights of the parties to this case. And this point is, perhaps, on the whole, the most important point of pure law in the whole case. It is purely a question of law unmixed with fact. The other questions that I have been considering are questions largely of mixed law and fact. This one is a simple question of law. Our proposition is this: that the Commissioners cannot impose upon the parties — either party — to this case, any contract obligations created for the occasion. The extent of the Commissioners' jurisdiction under this act is to say what property or existing rights in the nature of property shall be transferred by the one party to the other, and to value that property. They have no jurisdiction under this law to go beyond that and to impose upon the parties any contract running *in futuro*, any obligation to be liquidated at a future date, either once, annually or monthly, either for a short time or in perpetuity. The power of the Commissioners is exhausted, under this statute, in determining what property shall be transferred and in fixing its value.

In the first place, there is no word in the act, no phrase, no sentence authorizing by implication, even, the fixing of contract obligations sounding *in futuro*. The act provides that the Company may elect to sell, and the City, in that event, must purchase. They must purchase at a price; and that is to be determined according as the Commissioners find its fair market value. The Commissioners shall adjudicate what property, real or personal, including rights and easements, shall be sold by one party and purchased by the other. The words which I emphasize as I go along are quoted from the act.

It is true that in Section 1 of the act a right is given to the City to lease, and that, I assume, means to become liable to pay rent *in futuro*; but that section has nothing whatever to do with the valuation by this Commission. Section 1 confers authority upon the City as a corporation to lease a gas plant or an electric light works. And besides that, there are other clauses in the act, indicating that after the City has procured a plant, the managers, as they are called, or the manager — I think in the singular — may make contracts with reference to the management and operation of the works. But the powers of any Commission appointed under this act are derived exclusively from Sections 12 and 13, and in them there is not a word indicating that the Commissioners can fasten upon the parties *in invitum* a contract obligation, payable in the future, by lease or otherwise.

We conclude, therefore, that the Commission has not that power. We stand primarily upon the proposition that the Commission can have no powers unless they are expressly granted. That must be elementary. There are no powers to be vested in this Commission and no rights granted to the Holyoke Water Power Company by implication in this law. They must be found in express language, or they do not exist. That follows from the general principles of law which I endeavored to lay down this morning as applicable to this act, and particularly to Section 12, the purchase clause. It is, in its essence, a franchise or a privilege to the Holyoke Water Power Company to surrender its property upon certain terms, and those terms cannot be expanded by implication, without

violating the fundamental principle of statutory construction applicable to any act like this. For instance, the Commissioners have the power to compel the transfer of property by the Company to the City, subject to existing liens or mortgages, subject — note the language — subject to existing liens and mortgages, but has this Commission any power to compel a novation or a contract assumption by the City of those obligations? Clearly not. If the property of the Holyoke Water Power Company was mortgaged — it is not, I believe, the case — but if it were mortgaged for \$100,000 and the Commissioners should award the Company about \$340,000, as we claim, the Commissioners would say that we should pay them \$240,000, subject to the lien of the existing mortgage; but the Commissioners have no authority under this act to bind the City of Holyoke, and its public assets, and the property of its citizens in perpetuity, to the payment of that mortgage. No such power is required to do justice between the parties, because the mortgagee is protected by his lien if the City does not pay. It forfeits the property, and therefore any novation, any substitution of the city for the Holyoke Water Power Company, or any creation by this Commission of a personal obligation on the part of the City of Holyoke to pay the mortgage debt is unnecessary, and must not be assumed to have been granted by the Legislature in the absence of express provision to that effect.

While ample powers are given to the City and its management, the only right of the Company is to surrender its property at a valuation to be made of that property by a judicial commission. There is nothing further. To assume that the Commission can, at the instance of the Holyoke Water Power Company and against the will of the City of Holyoke, bind the latter to the terms of a perpetual lease, is a thing that seems repugnant to the whole spirit of this law and unsustainable by any principle of construction. The principle applies in like manner to the Holyoke Water Power Company. I don't think we have the right to ask this Commission to impose a perpetual contract upon that corporation for the maintenance of its dams and canals, and so forth. The statute did not contemplate this

contingency, and it was not necessary that the Legislature should provide for it. At any rate, it has not done so; and the power to bind either party to this cause to the terms of a perpetual contract simply does not exist. There is nothing, according to our construction of this act, for the Commissioners to do, but to determine what existing property, what things recognized at the common law as constituting property, are to be transferred from one party to the other, and consequently, what the fair market value of those things is. And any attempt by either party to this controversy to induce the Court to force upon the other perpetual obligations of any sort, should be rejected as repugnant to the spirit of the law, as without sanction in its terms, and as obnoxious to the general rules of law.

Let me illustrate again. If the Company's works were on leased property, there would be an existing lease; you could not compel the City of Holyoke to become subject to the terms of that lease by novation, very likely, any more than you could compel it to assume as a personal liability the underlying mortgage debt; but that lease would be existing property and its cash value would be a proper subject for determination by this Commission. It might have a value in excess of the rent, and it might not. If it had a cash value in excess of the rent, the City would have to pay it. So if the plant were built on land owned in fee but subject to a ground rent, the City would have to take it subject to the rent; but you could not compel the City to assume that rent. There is no reason for doing so in the interest of the landlord; his rights are entirely protected by the nature of his estate in the land. He can enter upon a failure to pay the rent. But you could not compel the City to assume that rent. If the lease, the estate, whatever it might be, a leasehold estate or fee, should have a cash value, that would have to be estimated and included in the award. So, very likely, if there were patent rights involved,—I do not understand there are any, but this is a specific case that may arise under this statute,—what the Commissioners can do in that matter is the same as what they can do in the cases that I have suggested, of leases and mortgages. If the Company does not offer the patent, of course it is out of the case. If it does, the

patent can be included in the transfer and valued ; but you cannot force the City to assume the obligation of the license if any such obligation exists. The value of the patent above and beyond the annual license fee, if there is any, can be estimated and must be bought from the Holyoke Water Power Company. And so on, all along the line, wherever a ground rent, a lease, a patent right, which, although intangible, is still existing property, is offered by the Company to the City, it must be transferred by assignment ; but that assignment cannot be accompanied by any novation or by any forced assumption on the part of the purchaser. If the property thus assigned has any cash value, that is, if anybody would pay anything for it, burdened with the obligation to pay rent, or license money, or lose it, then that value must be paid to the Company in cash. It is no answer to say that the Company ought to be released from its obligation to pay rent or license money if, as in the case supposed, the thing leased is transferred to the city ; for the Company can get no release from its landlord or licensor under this act. It seems to us that there is no escape from these conclusions, whether you regard the general scope of the law, whether you consider it with reference to these illustrations which I might multiply, or whether you stand upon the general, and, as we contend, sufficient principle of law that you cannot compel the City of Holyoke to do anything unless you find express sanction for it in the act.

However you regard this problem, and, as I have said, it is perhaps the most important question of law in the case, your conclusion must inevitably be that you cannot compel the City of Holyoke, against its will, to enter upon an obligation payable in the indefinite future. I have endeavored to make this matter plain by a reference to general principles. It is not likely to be a question upon which much authority can be found ; and I have not much to present in the way of specific authority addressed to this particular question. I have, however, one Massachusetts case which looks strongly in the direction to which my remarks have been pointed, and I have a series of analogies to which I desire to call your attention. The case that I refer to is that of *Tainter v. Worcester*, 123

Mass. 311. In that case it was held that a committee authorized by a municipal ordinance to purchase certain water pipes and other apparatus in connection with the introduction of a system of municipal water supply, was not authorized to make a contract to maintain the system or to keep it in repair. The question arose because the vendor was willing to sell the apparatus only upon certain conditions as to future maintenance; and the Court held that this committee, although authorized to purchase, and, incidentally, to determine the price, was not authorized to bind the City of Worcester to a contract of maintenance payable *in futuro*. It would seem to follow, that persons authorized, as this Commission is, to compel others to purchase and to determine what they shall pay, have no jurisdiction to compel them to assume a perpetual future burden; but their powers are restricted to a determination of what shall be purchased and of what shall be paid for the purchase in cash.

I might go on and consider the law of trusts. What would be the right of a trustee under a will or deed with a power of purchase? Would he have any right to buy a ground rent and bind the trust estate to the payment of the rent in perpetuity? I fancy no court of equity would sustain his accounts. A trustee with power of investment can buy for cash, but he cannot in the absence of express authority obligate the trust estate to the payment of indefinite and perpetual annual burdens.

I pass from the question I suggested as arising, quite possibly, under the law of trusts,—and to which I can see but one answer, and that a complete negation of this assumed power,—to a consideration of the long line of authorities dealing with the question of the inherent right of a municipal corporation itself to enter into a perpetual contract, or into a long term contract, with a public service company for prices, rents, or any similar matter. It was at one time held to be doubtful whether a town or city had, in the absence of statutory permission, authority to make a contract of any sort payable beyond its own term of office; but I suppose it is fair to assume that at the present time it is tolerably well settled by authority that where a town



or city is authorized to hire water or gas or electricity, and no term or limit is put by the act upon their authority, that town or city has the right to enter into a contract for the supply of water, gas or electricity, payable in annual installments for annual service. That certainly is the tendency of the decisions; and since the United States Supreme Court case of *Walla Walla v. Walla Walla Water Company*, 172 U. S., 1. I suppose we may assume that to be the settled law of the United States. But, Mr. Chairman, it is equally well settled that no town or city, even when authorized to enter into a contract for such matters, has the right to enter into a *perpetual* contract without express legislative sanction. The cases have decided that such a contract made by a city under due Legislative authority must be for a *reasonable* term; and if for an unreasonable term, it is void as such in the absence of express authority to make a contract for that particular term. It follows, of course, that a perpetual contract would be unreasonable; and such a contract no municipality ever ventured to make, whether for gas, water or electricity. Such a case has never yet come into court. But plenty of attempts have been made to enter into long term contracts,—for terms so long that the courts said they were unreasonable and void, unless they had the express sanction of the Legislature. There is a collection of the cases to which I refer in 180 U. S. 587, in the case of the *Freeport Water Company v. Freeport*,—a half dozen authorities on the subject all referred to in the opinions of the judges in that case,—which, by the way, did not turn upon this point.

We say, Mr. Chairman, that the City of Holyoke itself, as a municipal corporation, has no legal right to enter into a perpetual contract with the Holyoke Water Power Company, for any purpose. No such authority is given by the Municipal Lighting Act. Authority is apparently given by that act to the City, after it acquires the plant, to make certain contracts. But that authority is just like the authority which has been given to municipal corporations in the cases which I called your attention to, and will be construed by the Courts as meaning authority to make a contract for a reason-

able time, and not for an unreasonable term, much less in perpetuity. So the City of Holyoke itself has no lawful right to-day to enter into a perpetual contract; and if the City of Holyoke has no authority to do it, *a fortiori*, the Commissioners have no authority to impose such a contract upon the City against its will.

Passing along down the lines of the purchase clause of the Municipal Lighting Act of 1893, we come to a section which apparently at first is blind, and yet which shows, as I think does everything else in that act, there and afterward, that the Legislature of 1893 builded better than we thought it did when, in the preparation of this case, we first looked at the law; and that it had a pretty clear comprehension of the practical difficulties that might arise in the application of the principle of compulsory purchase. The Legislature safeguarded the interests of towns and cities which find themselves confronted with the obligation to buy property which they do not want, when it provided, at the end of the clause as amended in 1893, that "if any property [offered by the Company] will not be available to the City if purchased by reason of ....[any] cause whereby the city or town purchasing would be at a disadvantage in the use of same as compared with the vendor, the city or town may be released from buying the same, or a discount may be made from the price to be paid for the plant." We have here a different remedy, authorized by the Legislature, than what we have seen was the remedy in the case of property which is unsuitable, mechanically or pecuniarily, for the purposes for which the property is used. In the case of unsuitability the Commissioners have no alternative; they must reject the property, omit it from the transfer, and leave it to the Company. But in the case of property not inherently unsuitable, either mechanically or pecuniarily, the Commissioners have an election. They may either deal with it as they must with unsuitable property, and omit it from the transfer altogether, leaving it to the Company to reap the full advantage of its superior advantages in the use of the property, or they may include it in the transfer at a reduced valuation; that is to say, having valued the prop-

erty at large, so to speak, for the purposes of its use, but having found that the City would, in the use of it, be under some disadvantage, they may value that disadvantage, deduct it from the value of the property, and compel the City to pay only the difference.

I remember wondering—and I fancy every member of this Commission must have been troubled with the same thought—what the Legislature could have had in mind when they put that clause into the act. It would seem as if the rights of all parties were carefully safeguarded if the property were valued for the purposes of its use, unless some portion was worth more for some other purpose, in which case that portion would be left to the Company, to reap its higher value price by a sale to other parties, or otherwise. It would seem as if the Legislature might have stopped there; but evidently the gentlemen who framed this law knew a good deal about the possibilities of litigation of this sort, and about the peculiar circumstances under which a good deal of gas and electric light property in this State was held and managed. This clause applies with greater force to the water power and water plant than it does to any other part of the case, and the closeness of its application to that part of the case depends to some extent upon the nature of the offer of the Holyoke Water Power Company. But that is not the only case in which this clause may well be applicable to the circumstances of this case. I can suggest one or two others. For instance, we shall endeavor to satisfy the Commission that the gas works on the river should be omitted from the transfer, by reason of a defective title. If we succeed in that contention, what is to be done with the Bridge Street holder? You can't exactly say that it is not property suitable for the purpose of its use. While we don't admit that it is worth the cost of reproduction, or anywhere near it, yet that Bridge Street holder, and the cover, and the land, is suitable enough, as far as that goes; at least it can't be said to be so unsuitable as to justify the Commissioners in rejecting it for that reason. But what are you going to do with it, if you don't give us the gas works? Are you going to split the plant in two, give us the Bridge Street

holder without a manufacturing plant, and leave to the Holyoke Water Power Company the manufacturing plant, but no out-lying holder? So with reference to the distribution system. That we shouldn't say was worth the cost of reproduction, or anywhere near it, but it is not so unsuitable for the purposes of its use that we could ask the Commissioners to reject it on that ground. But what are the Commissioners going to do if they omit the manufacturing plant on the river, because the Company can't show any title to the land, and can't force us to take it by prescription? They can't conceivably saddle us with the distribution mains without the manufacturing plant, and if they did, it would leave the Holyoke Water Power Company in an impossible position,—it would leave the Company with a manufacturing plant on its hands, no distribution system, and in grave difficulties from having surrendered its franchises to the State. Under those circumstances the thing for the Commissioners to do is to hold that the City would be at such a disadvantage in the use of the mains as to necessitate the exercise by the Commission of its discretion to leave the distribution system and the Bridge Street holder out of the transfer altogether. That would mean to leave the whole gas plant with the Company, as before this case began.

That is a plain illustration, it seems to me, of the applicability of this clause to this particular occasion, in the event that the Company's title turn out to be so defective as not to warrant the Commissioners in forcing us to take it.

That will also be the application of this clause when I reach that stage of the argument, to the questions of water power. There are other suggestions that might be made, as to the scope of the Commissioners' duties in regard to the determination of what shall be transferred, which have special reference to the question of water power; but I will pass these by for the moment.

Permit me to summarize what has been said upon this branch of the case, which is the first problem which the Commissioners must attack. First, they can only include tangible property or intangible rights, easements and contracts that are

owned by the Holyoke Water Power Company, and exist on the day of valuation; that is, on the day of the offer. They can include nothing that is unsuitable, for physical or financial reasons, for the operation of a gas works or electric light plant in the city of Holyoke, unless they are also able to correct the financial unsuitability in their award. If not, they must exclude what is pecuniarily unsuitable as well as what is physically unsuitable. They cannot impose upon the city, without its consent, any lease or other obligation extending *in futuro*, whether for a definite term or in perpetuity. This applies as well to the Company as to the city. If any portion of the property turns out to have a higher value for some other purpose, it must be omitted from the transfer wherever the Commissioners cannot scale that value down to the value of the property for the purposes of its use; for it is only the value for the purposes of its use that the City must pay. And it is only in the case of property that is suitable that the City must pay anything at all. Finally, if any of the Company's property is not, in price or otherwise, essentially unsuitable, but if upon purchasing it the City would be under some disadvantage in the use of it as compared with the Holyoke Water Power Company,—that is, as compared with the use which the Holyoke Water Power Company now makes of it,—the Commissioners must either omit this part of the property altogether from the transfer or include it in the transfer at a reduced valuation.

So much for the duties and difficulties of the Commissioners as to what property shall be included in the transfer. I have not, however, said all that I had intended to say upon that subject. I will complete the discussion when I consider the question of the water power.

We now pass to the mode of valuation,—to the basis or method to be adopted by the Commission in valuing the property which it determines is to be included in the transfer.

The Company's contention, as I understand it, is briefly this: either that it shall receive the aggregate present cost to reproduce item by item the several component parts of the plant, less any depreciation that may be discovered, due to use

and age alone, that is, the estimated cost to reproduce a similar plant in similar physical condition, upon the day of valuation; or, in the alternative, that it shall receive the capitalized value of the alleged present net earnings of the Company derived from the operation of its plant, the possession of street franchises, the business skill, good-will, and the other elements which go to make up the earning capacity of a public service Company.

In valuing the plants upon the first theory, that is, that of reproductive cost, the Company contends that the land should be taken at its highest value as land, irrespective of the buildings on it; and that the value of the land thus determined should be added to the reproductive cost of the buildings and machinery.

This statement as to the land is true of the gas works' site in the river and of the site of the Bridge Street holder. As regards the site of the electric light plant, the Company varies its theory, and contends that that particular lot should be valued as a mill site. That contention I shall discuss under the more appropriate head of the water power.

At present I desire to point out just what this contention of the Company with respect to reproductive cost means, ignoring not only the value of the electric light plant site for the present, but also the Company's alternative contention as to a franchise valuation, and confining myself to what their witnesses call structural value. The Company's witnesses first estimate the cost to reproduce in January, 1898, a plant identical in all its parts with the gas plant, and in the same condition of physical deterioration that the Company's plant was, so far as they could estimate it. Then they add the value of the land, considered at its highest value for any purpose, as if there were no buildings on it. That is, they add what they say is the value of the land for general market purposes. Now what do you get when you have done that, when you have gone through that process, Mr. Chairman? What do we get when we have taken the cost to reproduce the plant; the value of the land as if there were no buildings on it, the cost of the buildings wholly without reference to the machinery in them,

and the cost of the machinery? What have we got then? Adding, I should have said, perhaps, something for the value of the plant as a going concern, that is, an allowance for contingencies and the general installation charges. What have we got? We say that we have not got anything at all. We have not got the value of anything. We have got nothing but an estimate of the cost to recreate a thing *in specie*, that is all. That, we say, is not the value of any part of this plant, much less the value of the whole of it. It is not the value of the land, because the land is not free, unincumbered by buildings. It is not the value of the materials and labor that go into the buildings, because they may not be worth anything like the cost to procure them. It is not the value of the machinery, because that may have no mechanical utility or value at all. We get nothing but the cost to reproduce; and that, Mr. Chairman, is all the evidence in this case offered by the Holyoke Water Power Company of the value of its property. There isn't another thing, unless, of course, you think you can gain some assistance from their attempt to capitalize the hypothetical earnings of the Company at 4 or 5 per cent. If their process of capitalization is no aid to you in determining the value of the Company's plant, as of course it cannot be, then there is no evidence in this case offered by the petitioner of the value of its property, except estimates of the cost of reproduction. That is the company's contention as fairly as I am able to state it, and that is the conclusion that I draw from this contention.

Let us now see what the theory of the City is, and then I will ask you to consider with me the general law of valuation and the special provisions of the Municipal Lighting Act itself, in so far as they affect this question. The City's theory, as I have stated, is that no evidence was offered by the Holyoke Water Power Company of the value of its property, —none whatever. Evidence of the value of the Company's franchises and property, based upon capitalizing at a preposterously low rate the net earnings figured at a preposterously high amount, has, we contend, no human relation to the subject; and that, we shall endeavor to show you, is the law as

well as the common sense of the case. And we contend that the theory of reproductive cost, when applied to a case like this, results in something that on the face of it does not represent the present value of anything.

We say, in the first place, that it is the property of the Company alone that is to be valued, not its franchises or its business, and that the capitalized value of the profits that you or I could make by taking this plant and getting such franchises from the State as are necessary to make anything out of it, has nothing whatever to do with the value of the plant itself. The most that we will concede that evidence of earnings could be used for would be along the line of the recent decision in *Pegler v. Hyde Park*, 176 Mass. 101, where, under special circumstances, evidence of the amount of business done by the Company was admitted as throwing some light upon the "capacity of use" of the property. That is to say, if there was any doubt as to whether this property had *any* value for the gas or electric light business, you might get some assistance from the fact that it was actually earning money in that business; but you could not determine under the rule in that case how much the property was worth by a consideration of how much the Company was earning out of its franchises and its plant. We say that all evidence of that character is inadmissible in a case which relates exclusively to the valuation of property which is not alleged to be wholly without value for the purposes of its use, and which can be seen in operation. In the Pegler case the property had been destroyed and could not be viewed.

Confining our attention, therefore, to the other branch of the case, and assuming that the plant is to be valued only in its physical or structural features, we say that this structural value is not to be reached by simply adding together the cost of reproducing the existing plant item by item, but by considering the mechanical utility or value of the plant as a whole, having reference to its capacity, its suitability, its efficiency, its economy of operation, and its general adaptability to the gas or electric light business in the City of Holyoke.

We say that you must value this plant as a unit, as a whole; and while you may, if you can derive any benefit from it,—



which we doubt under the circumstances of this case,—use the reproductive cost of the plant as a consideration to be borne in mind in reaching your final determination of value, you should not only take into account its depreciation due to use and age,—which is all that the witnesses for the Company consider,—but also the depreciation below reproductive cost, due to the obsolete character of the machinery, the faulty arrangement of the plant, the possession of inadequate facilities for extensions, the general inefficiency of the machinery, and the excessive cost of operation.

We say that no valuation of this plant is worth the time that you spend upon it, in a court of law or in the forum of common sense, from the standpoint either of a prospective purchaser or from the standpoint of a judge, unless you take all these considerations into account, and any others that may seem to you to be competent and proper. Among the others, we might note particularly the estimated cost to procure and operate a plant of equal capacity, modern type, and superior or equal efficiency and economy of operation.

So much for the general principles. If you had no law to guide you, Mr. Chairman, you would adopt those principles. And that, after all, is stating my whole case; because the law of valuation in its present condition is nothing but the application to the more and more complicated questions that are being presented to the courts, of the dictates of common business sense.

No man out of a lunatic asylum would ever think of buying a piece of property upon a mere estimate of reproductive cost; and no man out of a lunatic asylum, and who had common honesty in his heart, would think that he could impose his property upon a prospective purchaser by reason simply of its reproductive cost, and get him to pay that price for it. Throughout this case, from the beginning of it to the end, you have only to apply those dictates of common sense that guide the buyer and the seller in the transactions of ordinary life. They are ample and sufficient, and entirely adequate to settle every question of valuation that arises in this case. I invoke them, and ask you to apply them unless you find that they are shut out by some

positive and mandatory rule of law ; and the burden is upon the other side to point out the laws which exclude the use of common sense in a case like this. We do not think that they exist or can be cited. We think, as I have said, that the law, as it now stands, is on a footing with the dictates of common business sense and prudence as applied to these transactions, and it will be my effort to satisfy you of that.

The first point to which I desire to call your attention, is that the Company can only recover the "fair market value" of its property. Of course the word "market" and the word "value" are both used currently in common conversation, and, also, we have all of us had occasion to regret, by judges and text-book writers, in a variety of more or less inconsistent senses. You can mean about anything by "value," according as you use it, and the word "market" has, unfortunately, had an almost equally great variety of legal definition.

Whatever it be, however, "market value" is the limit of recovery in this case ; and if there is any higher or greater value to be assigned to any portion of the Company's property than that, the Company cannot get it. All that the City of Holyoke is bound to pay is the market value of the Company's property ; and that applies, Mr. Chairman, just as much to the general injunction to the Commissioners to value the property of the Company for the purposes of its use, as it does to the subordinate and subsequent injunction to value any part of it at its higher value for other purposes, if the Commissioners find it has such higher value. That greater value is also defined in the act as being the "market value" of the portion of the property in question. So that, whether you are considering the application of one clause or the other of the statute, you are limited to market value.

Now market value means selling value. It means what you can get for a thing. In its strict and present legal sense, market value is the fair cash value ; is "that amount of cash for which property will exchange in fact," according to the definition by the chief justice of our court in *National Bank of Commerce v. City of New Bedford*, 155 Mass. 313. Or, to put it as it has been put by the Supreme Court of New Hamp-

shire and other courts, the market price of the property is that sum which can probably be obtained for it by using reasonable efforts to sell it.

It may not be expressly contended in this case that either the Company's plant or the electric light plant has any higher value, for any purpose, than its market or selling price. I do not think that contention will be made. But the theory upon which this case has been tried by the Holyoke Water Power Company is equivalent to that contention, because they say that this property is to be valued at the aggregate cost to reproduce its component parts, and that may, of course, far exceed the market or selling value of the whole.

I shall show you that there may be cases in which it is proper to apply the test of reproductive cost, although that may exceed the market value of the property. We concede that, in certain cases, reproductive cost may be obtained; but we say that reproductive cost is more than market value, and is so stated in those authorities. But we say that the measure of recovery in this case is, by the terms of the act, limited to the market or selling value of the property; and if reproductive cost is in this case more than market value, it must be ignored as matter of law.

I need not take up the time of the Commission by considering the various judicial uses that have been made of this expression, "market value," or by quoting the long list of authorities which hold that more than market, meaning selling, value can be recovered in some cases.

Originally, "market value" meant what could be obtained for a piece of property in market overt. I think that is the earliest use of the expression. It meant simply the current commercial price fixed by auction or in the public marts in the towns of England. That was the earliest use that we find in the law books of the expression "market value." But as civilization advanced and became more complicated, that definition proved wholly inadequate, and as a matter of fact it has been used in almost every conceivable sense. As at present used, however, according to the weight of authority, particularly in this Commonwealth, market value is not restricted to the

going auction price in market overt, nor is it to be expanded, so as to include anything that you can get. It is limited and defined as meaning what you can probably get for property upon a fair sale, taking a reasonable time to procure a purchaser.

Now it may happen that in many cases property is worth more to the owner than that. He may have a private use for it — not a mere *pretium affectionis*, but a real, legitimate and valuable use for the property in excess of what he could probably get for it; and in all such cases, at least in cases of eminent domain, insurance and the like, where the property is entirely destroyed and he is to receive full indemnity for the destruction, the Courts allow him that greater value. The law books are filled with such cases,—there is a long list of them in this State and elsewhere. There are some thirty cited in our brief.

I will mention just a few instances in passing: Personal clothing, wearing apparel,—the clothes we have on we could not sell in Dock Square for a tenth of their value in use,—family portraits; household furniture; a lawyer's brief — there is one case on that —

Mr. BROOKS. The Courts decided that that had no value, I believe.

Mr. MATTHEWS. No, in this case I think the Court decided that it had, and it gave the owner \$1,000.

Mr. BROOKS. I don't know whether it was let out to a Commission.

Mr. MATTHEWS. The jury gave \$1,000 in that case, I believe. He lost his brief, and they figured the time it would take him to put it together again as the basis of compensation; but he could not have sold it for anything. So with personal baggage and other similar articles. And coming down more particularly to the cases that are analogous to this, we find that in the law of insurance, where the assured is to receive full indemnity, it is held that market value is not always the measure of his recovery, but that he can recover the reproductive cost of the property irrespective of its market value. That was held in this State in the case of *Washington Mills v. Ins. Co.*, 135 Mass. 503. In this line of cases the Court recognizes

that the plaintiff is entitled to more than market value, and therefore lets him show reproductive cost, tells the jury that this is to be the basis of the verdict.

But suppose you have a policy of insurance that is limited to the cash value of the property at the time of loss, then where is the plaintiff? He does not get reproductive cost in that case; he is limited to what the property would sell for, as was decided in the case of *Commonwealth Ins. Co. v. Sennett*, 37 Penn. St. 205.

In tax valuation cases it is market value — selling value — that controls, and not reproductive cost. In the appraisal of property in probate proceedings, in partnership liquidations and similar cases, the same rule governs. It is what a thing will sell for, — not what it would cost to get it up, but what it will sell for.

In other words, the general rule of law is that in cases of indemnity, — trover, eminent domain, insurance, etc., — where the principle of the recovery is to indemnify the plaintiff against the actual loss that he has sustained, he can show by estimates of reproductive cost or otherwise what that loss is, even if it exceeds what he could have got for the property in the market. But where the principle of indemnity does not apply, there *market value* is the test, as in tax valuation cases, probate accounts, and similar proceedings, and the plaintiff is limited to the selling value of the property and cannot rely on reproductive cost or any other and conflicting evidence of intrinsic value.

As the Municipal Lighting Act specifies market value as the measure of compensation, any basis of valuation which, like reproductive cost, may result in a higher value, cannot be set up or used as a conclusive test. There being a well understood difference in the law between market value and that higher value which is sometimes obtained and may be evidenced by reproductive cost, an act of the Legislature which limits the recovery to market value excludes by its terms a recovery upon any higher basis such as that which would be permitted by the simple and inconsiderate application of the rule of reproductive cost.

The next proposition which I will suggest for your guidance

in determining the value of this property is that the property must be valued as a whole, as a unit; and to this point I beg your especial attention.

This rule applies to every case of valuation, whether you are seeking to ascertain market value or that higher value to which the owner of property may sometimes be entitled. Whatever be the basis, mode or theory of valuation, the thing under valuation, whatever it is, is to be valued as a whole. And this constitutes a conclusive argument against the process of estimating value by simply adding together the cost to procure the various parts of a similar plant in similar condition and the cost to procure similar land as if it had no buildings on it.

The CHAIRMAN. Mr. Matthews, before you go to that, if it does not interrupt you at all —

Mr. MATTHEWS. No, sir.

The CHAIRMAN. I imagine you have looked at the Newburyport case\* in reference to this question of reproduction. I do not recall the rule as it is laid down there, but if you have not I wish you would look at it.

Mr. MATTHEWS. Yes, sir, I am familiar with it. The Court said something about reproductive cost in that case, and also in the Gloucester Water case.† I noticed, however, in the Gloucester Water case that what the Commissioners and the Court meant by "duplication value"—I think that was the expression used—was the cost of procuring another plant of equal capacity as a water supply system. In the Gloucester case they took into account not only reproductive cost, but the cost of a wholly new water supply system. In the Newburyport case I believe they did not, because, as I am informed, it was not offered.

The CHAIRMAN. I do not remember the details.

Mr. MATTHEWS. I do not think it was offered, Judge. I do not think evidence of a new water supply plant was offered in the Newburyport case. It was offered and admitted by the Commissioners in the Gloucester case, and their action was sustained by the Court.

The CHAIRMAN. I think you had better look at the Newburyport case.

\* *Newburyport Water Co. v. Newburyport*, 168 Mass. 541.

† *Gloucester Water Supply Co. v. Gloucester*, 60 N. E. 977.

Mr. MATTHEWS. Yes, sir, I will do so. I am glad that you mentioned it.

The test of reproductive cost applies better to a water supply system, than to a manufacturing plant. There has been little progress in the art of constructing a water supply system for many years. Such a plant consists of dams, pipes, pumps, and so on, and there has been little change or progress in the art in the last ten or fifteen years. So in the case of an ordinary water plant built within the past few years, such as the Newburyport case was, I think, the test of reproductive cost, less depreciation due to use and age, would probably be satisfactory to both parties. I understand it was in that case, and no effort was made, as I remember, to introduce any other basis of valuation, or to impeach that basis. Possibly, evidence as to defects or depreciation beyond physical deterioration may have been received, but I am not sure.

I would like to suggest, however, as I easily can, water supply cases where the rule of reproductive cost would reach most absurd results. I remember once looking over the Croton water shed in New York, and I found that they were submerging the old Croton dam by building a higher dam lower down the valley. Where would the purchaser be if he had to pay the reproductive cost of the upper Croton dam? The moment the new dam was built that old dam was worth nothing at all, and even less than nothing, because it occupied space, and its mere existence was a detriment to the system as a whole. And yet, to apply the test of reproductive cost would give the company what it would cost to reproduce both dams. That is a fair instance of the inapplicability of the test of reproductive cost to all cases of water supply.

Now, in the Newburyport case, as I remember it, there were no special features like this; the test of reproductive cost was relied on by both sides as the best way to determine value.

The CHAIRMAN. You say it might sometimes be an element and sometimes a test.

Mr. MATTHEWS. That is the idea in substance. It is never absolutely conclusive, but in some cases it is more conclusive than in others. I was going to comment upon this

matter later on, because there is a section of my brief on this very subject; but I would just as lief do it now, that you have brought the matter up. The test of reproductive cost, we concede as matter of law, is always admissible; but its value in fact depends wholly upon the circumstances of the case. If you have a water plant which is not more than ten or fifteen years old and consists of a dam and pipes, and machinery which is not over that age, or there may be possibly no machinery at all,—it may be a gravity system,—you would not get very far off if you applied the test of reproductive cost less depreciation of all kinds. So if you had a manufacturing plant which was absolutely new, and built on modern principles, reproductive cost would come very close to present value. Take, for instance, the water gas plant in this case—in the Holyoke case. I mean the water gas plant itself, which cost \$14,000. That plant was just as good in 1898 as it was in 1896, barring depreciation from use and age; and there is no difference between us and Mr. Randolph in respect to the manner in which that portion of the plant shall be valued, or as to the amount. If you have a plant, a manufacturing plant, a gas plant, an electric light plant, a cotton mill or anything else, which was new within a reasonable time—two or three years—of the day of valuation, and is composed of modern, up-to-date machinery and laid out by competent engineers: why, then you have, as in the case of the small water supply system that I mentioned, a case where reproductive cost comes very close to being the controlling factor in the valuation; very close indeed.

That is one extreme, but the further you get from that state of affairs the less valuable becomes the test of reproductive cost. The more diversified the facts, as in the case that I suggested about the submerged dam on the Croton watershed, the less applicable the theory is; and of course the older the plant the less applicable also. And the theory is less applicable in some classes of industry than in others. It would be less applicable to an electric light plant than it would be to a gas plant. You would come nearer to getting the true value out of the reproductive cost of a gas works than you



would in the case of an electric light plant, because there has not been the same advance in the art in recent years in the one case as in the other. So in the case of a cotton mill, you would get a great deal further from the truth if you tried to find the value of a mill ten years old by reproductive cost than you would in a water supply system, because there has not been any great advance in the art of constructing small dams and laying cast-iron pipes in the last ten years, whereas, I assume that the type of cotton machinery has changed materially. And so on all along the line. It is a question of degree, and a relative one. I shall have occasion to consider more in detail later on, the relative availability of the test of reproductive cost as compared with the other test that we suggest, namely, the cost of a standard modern plant. At the present point I am simply endeavoring to establish the legal proposition that reproductive cost is not a conclusive test of value, particularly in cases arising under the Municipal Lighting Act.

The property must be valued as a whole. And that point, that rule, if it be one, is conclusive against the application of the theory of reproductive cost, without modification, in its naked rigidity, as presented by the witnesses for the Company in this case. Their process consisted simply in taking the land as if there were no buildings on it, then taking each brick and stone and cubic inch of mortar, each square foot of lumber, each nail, each shingle, each ounce of paint, figuring out what each of them would cost, adding the figures all together, and then clapping on 10 or 12 per cent. for value as a going concern besides.

Now that is not the way to value the plant as a whole. It may be some aid, I concede,—it is in some cases very much of an aid, and it may be some aid in all. But it is not of itself and by itself the value of the plant as a whole. That as a proposition of common sense, Mr. Chairman, I do not need to argue. It must be apparent that reproductive cost, thus figured, may or may not represent the present value of the plant as a whole; that depends upon the other evidence in the case. But the theory of our friends upon the other side is that it

represents the value of the property in law. We can conclusively dispose of that contention by the citation of two cases that have been decided by our Supreme Court. And in considering those authorities, which are

*Tremont & Suffolk Mills v. Lowell*, 163 Mass. 283,  
*Troy Cotton Co. v. Fall River*, 167 Mass. 517,

I will ask the Commissioners not to be content with the printed reports, but to look at the bill of exceptions in each case, as found in the Social Law Library. They will there find the careful reports made by the Commissioners and the Judges of the Superior Court in both these cases. Judge Richardson, I think, sat in both cases.

Mr. BROOKS. He was the Commissioner, wasn't he?

Mr. MATTHEWS. He may have been.

Mr. BROOKS. In the Tremont & Suffolk he was Commissioner.

Mr. MATTHEWS. Now those cases conclusively dispose of the theory that the reproductive cost of the buildings, added to the value of the land, irrespective of the buildings, is the value of the whole. That was the argument for the city of Lowell —

Mr. BROOKS. Those were both tax cases.

Mr. MATTHEWS. Exactly; they were both tax cases under the Act of 1890. In those cases the city of Lowell and the city of Fall River, respectively, contended that the proper way to value property for taxation purposes was exactly as the witnesses for the Company in this case have done it; that is, to take the land as if it were divorced from the buildings and unconnected with water power, figure out the reproductive cost of the buildings and machinery, and add the results together. The Court in both cases rejected that theory of valuation and cut the value of the whole down to a figure which represented the value of the whole as a manufacturing unit for the purposes for which the property was being used.

In the Tremont & Suffolk Mills case, in which our late friend Mr. Goulding appeared for the city, the respondent asked the Court to rule —

"That in fixing the value of the petitioner's real estate the proper method was to take the value of the land considered separately and independently of the buildings and other structures on it, and as though the buildings and structures were severed and removed from the land, and independently of the particular uses to which the land was devoted, and to add to the value of the land so determined the value of the buildings and other mill structures estimated and determined with reference to their age, etc."

The Court declined this request, saying that they would not uphold a method of valuation which produced the illogical result that the sum of the value of the inseparable parts is greater than the value of the whole.

I am going to ask the indulgence of the Commission while I quote at more length than I shall in commenting upon any other case, from some of the remarks of the trial justice in the Tremont & Suffolk Mills case, because that was a case involving the valuation of mill property; the report was a most painstaking and thorough one, and there is a good deal in it which has a very close application to the case at bar. The Court says:

"The evidence shows that the mill buildings of the petitioner are old, inadequate in style, not well adapted to the use of modern machinery"—

The CHAIRMAN. I have an engagement at four o'clock, and you might stop without opening up that subject.

Mr. MATTHEWS. Then I will stop right here.

(Adjourned to Saturday, December 21, at 10 A.M.)

## **EIGHTY-SEVENTH HEARING.**

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BOSTON, Dec. 23, 1901.

The Commissioners met at the Court House at 10 A.M.

Mr. MATTHEWS. Mr. Chairman, it becomes my painful duty again to suggest that death has interrupted the course of these proceedings. The Commission may have noticed the absence of his Honor, the Mayor of Holyoke, on Friday and Saturday. This was due to the serious illness of his wife. We are informed that Mrs. Chapin died this morning. Under those circumstances, on behalf of my colleague and I think very likely of counsel on the other side, I would like to suggest that this court do not sit to-morrow, that being the day appointed for Mrs. Chapin's funeral.

(The Commissioners assented to the suggestion, and after further conference it was agreed, Wednesday being Christmas Day, that at the close of to-day's session the hearing be adjourned to Thursday, December 26, at 1 P.M.)

Mr. MATTHEWS. I desire now to renew my request of counsel for the Holyoke Water Power Company, to state whether or not the Company offers the water power involved in this case for valuation by the Commissioners or not.

Mr. BROOKS. Well, may it please your Honor, we think that the lease as originally proposed and as amended speaks in no uncertain terms. There is no ambiguity in either the lease proposed originally, or that one that was afterwards proposed in view of the criticisms made by our friends upon the other side upon the unamended lease, and in view of the request that we amend the same. However, in answer to my friend's question,

it will be our contention, and we think we can support it, that the lease as originally proposed and amended later in consequence of the request or demand of the other side we shall rely upon, and that its terms and conditions should not be varied.

Mr. GREEN. Shall not be what ?

Mr. BROOKS. Varied.

Mr. MATTHEWS. By the Commissioners ?

Mr. BROOKS. Yes, that would be our contention.

Mr. COTTER. That has reference to the amended offer ?

Mr. BROOKS. Well, it has reference to the entire lease amended or unamended, as the case may be. We claim, of course, that your Honors should take into consideration the lease as it stands amended. If the contrary view should be taken, according to the suggestion that has been made here in the course of the argument that we cannot amend the original offer, although the amendment may redound to great benefit to the City and without any extra expense, why, then we should say and argue that your Honors could not vary the terms of the original lease.

The CHAIRMAN. You mean by that, if you thought that you had charged too much, you could not put in another price ?

Mr. BROOKS. We shall make that contention, your Honor. That is, we shall say that you cannot vary the rental proposed ; that will be our contention in our argument. It will also be our contention in our argument that you cannot vary the other terms and conditions contained in the proposed lease as it stands now with the amendment, which I think was introduced in Vol. VIII. of the testimony. Is that a sufficient reply ?

Mr. MATTHEWS. I think so, Brother Brooks. The position occupied by the Company coincides with our own idea of the position that they took in their original offer to the City ; and it is upon that theory that the case has been tried for the City of Holyoke. And, in order that there may be no possibility of misunderstanding, I will put the matter in my own words, and ask Mr. Brooks if I have got it correctly. The Holyoke Water Power Company offered to the City of Holyoke

its entire gas plant ; it offered to the City of Holyoke its entire electric plant, meaning the electric lighting station, the distribution system, the steam plant, and the water development. All that property, both gas and electric, it offered to the City of Holyoke upon such terms as to price as the Commissioners might award. That is correct, is it not ?

Mr. BROOKS. Well, I was not following that particularly. Will you please read it ?

(The stenographer read Mr. Matthews's statement beginning, "The Holyoke Water Power Company offered to the City of Holyoke its entire electric plant," etc.)

Mr. BROOKS. That, of course, is in exclusion of water power ?

Mr. MATTHEWS. I am coming to that now. I am right so far, am I not, Mr. Brooks ?

Mr. BROOKS. I should think so. Probably it left out something.

Mr. MATTHEWS. Very likely, but in substance.

Mr. BROOKS. The general principle is correct.

Mr. MATTHEWS. Mr. Brooks says I am correct. Now, as to the water power, the Company offered to the City of Holyoke water power to operate the gas plant or the small water wheel in the gas plant, and to run the electric light station, upon certain terms and conditions as to rent and mode of use, which terms and conditions as to rent and mode of use are fixed by the Company itself and are not subject to valuation by the Commissioners. Have I stated that correctly ?

Mr. BROOKS. That will be our contention.

Mr. MATTHEWS. And by contention—

Mr. BROOKS. I will go no farther than that.

Mr. MATTHEWS. Well, do you not mean, Mr. Brooks, that that was the object of your offer ? I do not ask you to discriminate now between the first draft of lease that you put in and the second draft ; but, waiving any discrepancies between the two, is it not true that the Holyoke Water Power Company in its original schedule offered to the City water power upon the terms and rent specified in the offer or the schedule annexed thereto, and not for valuation by the Commission ?

Mr. BROOKS. I should say you are correct as to the first part of your proposition. I cannot go any farther than I have gone. I say that we shall contend, and we shall contend with such feeble force as I am capable of, that your Honors have no right to change the terms of the proposed lease as it stands to-day in its amended form. I cannot say whether your Honors will or not, but that will be our contention; and we shall make a request for a ruling. I cannot, of course, give a judicial opinion in the place of your Honors with reference to it. It seems to me I am as definite as I can be. I don't think there is any trouble between us.

Mr. MATTHEWS. I think not. It seems to me that the position of the Company is made entirely clear by Mr. Brooks's statement, and it coincides, not only with the theory upon which this case has been tried by the City, but with our understanding of the law.

The CHAIRMAN. Do I understand that that precludes the Commissioners from taking any other valuation?

Mr. MATTHEWS. That I shall have occasion to consider later on.

The CHAIRMAN. Yes.

Mr. MATTHEWS. But before considering it, before submitting our brief, which was written upon a certain assumption as to the meaning of the Company's offer, I thought it well to have the matter definitely settled, as it has been by Mr. Brooks's statement. We have not asked Brother Brooks, of course, to illumine the discussion, as he doubtless might, with any statement of legal opinion, but simply to state, as he just has, what the position of the Company was — what its intent was in its offer to the city.

The CHAIRMAN. Of course there ought not to be any misunderstanding about this.

Mr. MATTHEWS. If the Company had taken a different attitude, we should have something to say. The case has been tried by the City of Holyoke upon the theory which Mr. Brooks has just confirmed, that the water power was offered conditionally to the city, upon certain fixed conditions as to rent and terms

of use, and not, as its property was, at a rent to be fixed by the Commissioners.

The CHAIRMAN. I understand him to say that he shall contend that we cannot vary. Now suppose the Commissioners should get the notion into their heads that they could?

Mr. MATTHEWS. That I shall discuss later.

Mr. BROOKS. I suppose there are opposing contentions. My friend will claim that you can vary, if you choose to, the amount of rental asked per annum for each of these 16 mill powers, and I shall contend, on the contrary, that you cannot vary it in that respect. What the result will be of course I cannot say.

The CHAIRMAN. All right. I do not think there will be any misunderstanding.

Mr. MATTHEWS. I will resume my argument where it was interrupted on Friday last, premising, however, in order that the Commissioners may not continue to labor under the misapprehension which evidently affects my brother, that we shall not argue that the Commissioners have any power to vary the water rent. We accept the position of the Company. We think it is consistent with their legal rights, and that the Commissioners have no right to vary the rent or the terms of use proposed by the Company. The conclusion that we shall deduce from that position, as matter of law, is that the Commissioners must leave the water power out of the case altogether, and exclude it from the transfer and the award.

The CHAIRMAN. Supposing you consider whether or not you ought not to argue it on the evidence as offered.

Mr. MATTHEWS. Yes. I shall have occasion to argue the value of water power from another standpoint. The Commissioners must have noticed that we put in evidence concerning the value of water power. This was not done, however, because we differed from my brother as to the right of the corporation to make a conditional offer, but because we felt in certain other aspects of the case that it would be necessary for the Commissioners to fix the fair and reasonable value of the water power offered, although they may have no jurisdiction to force it upon the city upon any terms whatever.



We took advantage of the intermission granted by the Commission on Saturday to hasten the proofs of our brief through the press, and we now submit them to the Commissioners and counsel for the Holyoke Water Power Company, with the statement, however, that they are not yet in final shape. Cross references have still to be filled in, and we have noted already a few printer's errors in figures, and there may be more. We will submit them, of course, at or soon after the close of the oral arguments, in final shape. In the copies that the Commissioners and counsel for the Company then receive we shall note, as I stated on Friday last, in red ink in the margin, those findings of law and fact which we desire the Commissioners to adopt.

Mr. BROOKS. I do not find any such thing in mine.

Mr. MATTHEWS. I said we will do that finally.

Mr. BROOKS. May it please your Honors, I do not think that this printed argument upon the facts ought to go in until I have had an opportunity to make an examination of it. Here are between five and six hundred pages.

Mr. MATTHEWS. Law and facts together.

The CHAIRMAN. We shall have no occasion to look at it until after —

Mr. BROOKS. I want to now object to it, and thus save my rights.

The CHAIRMAN. Very well. Is this to become a part of your argument, Mr. Matthews?

Mr. MATTHEWS. Well, it all goes in as a brief.

The CHAIRMAN. We, of course, will take almost anything counsel will give us as part of the argument.

Mr. MATTHEWS. I should suppose the Commissioners would be glad to receive from either side anything in the way of a printed argument or brief.

Mr. BROOKS. Mine will come verbally.

The CHAIRMAN. We shall listen to it with great pleasure.

Mr. BROOKS. I take issue with you there. I cannot conceive how you can listen to it with any pleasure; but I have no brief upon the law or the facts, nor shall submit none, except

as I comprehend both law and facts in the course of my argument.

The CHAIRMAN. Very well.

Mr. BROOKS. I have had something else to do in the last six or eight months.

The CHAIRMAN. Now, Mr. Matthews, you may go ahead when you get ready.

MR. MATTHEWS'S ARGUMENT, *resumed*.

Mr. MATTHEWS. I had reached that point in my argument on Friday last at which I was calling the attention of the Commission to the necessity in this, or in any valuation case, of estimating the value of the property as a whole, as a unit; and I had called the attention of the Commissioners to two cases, both tax valuation cases, in which the necessity for thus valuing property of any sort—in those two cases it happened to be manufacturing property—was very forcibly pointed out. The first of those cases was the *Tremont & Suffolk Mills* against *Lowell*, and I should like to read from the findings made by the single justice of the Supreme Court.

Mr. BROOKS. I suppose you have that volume there?

Mr. MATTHEWS. Yes, it is here; everything is in the brief, Mr. Brooks. You have got the brief before you, and you needn't ask me to give the citations, as they are all there.

Mr. BROOKS. It would help me some, and I thought you might have it right there.

Mr. MATTHEWS. Certainly. I didn't understand. It is 163 Mass. 283. Now, the conclusion reached by Mr. Justice Richardson, I think it is, of the Superior Court, which was confirmed by the Supreme Court, was that the valuation of a manufacturing plant must be made in such a way as does not produce the illogical result that the sum of the values of the inseparable parts is greater than the value of the whole. The contention of the City in that case, arguing for the high value, was exactly that which is put forth by the Holyoke Water Power Company in this case,—that you should take the value

of the land as land, considered as divorced from the buildings on it, and then take the cost to reproduce the buildings and machinery, and add the two together. In that way you would get what might fairly be called the reproductive cost of the entire plant. You would get the cost to reproduce the thing itself,—that is, to buy the land, if it were land, in the market to-day, to erect the buildings if they were not there, and to install the machinery. The sum of those three amounts is the reproductive cost of the plant, taken as a whole, including land. Now the Commissioners of the Superior Court, and following them the Supreme Court of this State, condemn that mode of valuation. The lower court says :—

“The evidence shows that the mill buildings of the petitioner are old, antiquated in style, not well adapted to the use of modern machinery, and are inconvenient in many ways; so it is obvious that the cost, less the estimated depreciation therefrom for wear, would not lead to a correct determination of the ‘fair cash value’ at the time of this inquiry.”

I am quoting more at length from this case than I shall have occasion to do in future, because it happens that this and the following case relate to manufacturing property, and are therefore more closely in point than the other cases that relate to water supply or water power. The Court goes on :—

“In the determination of the value of a mill property as such, obviously its situation, construction of its building, organization of its machinery, kind of, supply and stability of the power by which the machinery is run, the convenience and adaptability of each and all its parts for the securing the largest production with the least expense, are things which must be considered. . . . The respondent claims [that was the City in that case], and offered evidence to show, that the land in the mill yards is worth forty or fifty cents per square foot, for the purpose of general improvement, to be cut up into lots, with streets, for building houses and stores thereon.”

You will note that is also the exact price which the real estate experts for the Company assign to the site for the gas works in

this case,—forty or fifty cents a foot, as it stood, with no buildings on it. That is the Company's evidence concerning the value of their land as such. The Court goes on :—

“It appeared to be admitted at the hearing that the land is worth more for such purposes (if it can be used for those purposes) than it is for mill purposes merely. The petitioner, on the other hand [that was the mill in that case, claiming the lower value,—having the low value side of the case], claims that the land should not be valued in this way or on that theory; that the fair cash value of the real estate in the mill yards, consisting of the land, mill buildings, penstocks, wheel pit, water wheel, etc., is at any time what it is fairly worth or what its fair cash value is as it stands, as a whole, considered as one thing, a unit.”

The Court then goes on to state the mode adopted by the assessors :—

“They first proceeded to put a valuation upon the land itself, as if it could or might advantageously be used to cut up into lots, with streets, as sites for the erection of dwellings, shops, etc., and then they proceeded to add to that valuation their estimate of the value of the water power, mill buildings, chimneys, penstocks, wheel pits, wheels, etc., as they stood and were used on May 1, 1889, for their existing mill purposes; their valuation of the land for building purposes being based upon the idea that the mill buildings, chimneys, penstocks, wheel pit and water power, wheels, etc., were to be removed (and it is admitted if removed would be of no value); but their valuation of the mill buildings, chimneys, wheel pits, penstocks, wheels, etc., was made upon the theory that they were to remain there, and to be used for mill purposes.”

The Court goes on :—

“If the land was to be assessed and taxed separately and independently of the buildings and structures on and affixed to it, and if such buildings and structures had any substantial value separated from the land, then the question would be different; but the land and those buildings and structures on it are not separately taxable. The valuation sought for and required by law was the fair cash valuation of the real estate, which consisted of land and the

buildings and structures thereon. The correct method of determining that valuation must, I think, in such a case, be one which does not produce the illogical result that the sum of the values of the inseparable parts is greater than the value of the whole.

"If [the Court suggests] the value of the land for building purposes was greater than the value of the land, water power and structures on the land together, then the assessors might have been justified in putting upon the land a valuation for such building purposes regardless of other things ; but it was not."

The result in the lower court was that the assessors' valuation was cut down, so that the value determined in the Superior Court was much less than the aggregate valuation reached by taking the land at its highest value and the buildings at their reproductive cost, and adding the two together. The Supreme Judicial Court sustained the Superior Court.

"This value [says the Court] is necessarily to be estimated with reference to any and all the uses to which the property is adapted in the hands of any owner. It often happens that a lot of land with old buildings upon it is worth as much, or nearly as much, without the buildings as with them ; that the most profitable use the land can be put to is to remove the old buildings and build new ones ; and that, in order to do this, the old buildings must be torn down at an expense nearly equal to or more than the value of the materials of the buildings. Considered as a whole, the buildings add little or nothing to the value of the land."

The Court says :—

"Separated from the land, the buildings may have little or no value ; if allowed to remain on the land, they may have great value, and, as the value of the land and buildings for the purposes of taxation must be estimated with reference to all practical uses to which they may be put by the owner, or by any person who may become the owner, it often must be necessary to determine whether the best or most profitable use of the whole property is to remove the buildings or to permit them to remain. . . . The contention of the respondent [the City] in effect is, as we under-

stand it, that, since the land must be valued exclusively of the buildings, the land must be valued as if the buildings were removed from it, even although this value should amount to the whole value of the land and buildings taken together, and that the buildings must be valued, not as buildings to be immediately removed from the land, in which case they might be worth little or nothing, but as buildings which might remain on the land, and with reference to the uses which might be made of them if they remained."

Now the Court says,—

"If the best or most profitable use the land can be put to is to tear down the buildings and build new ones, and if the value of the land is estimated with reference to this use,—and if the best use the buildings can be put to is to permit them to remain on the land and be occupied or let, and if the value of the buildings is to be estimated with reference to this use,—the result would be that the land and buildings are valued with reference to uses which are inconsistent with each other, and the total valuation would be greater than the fair cash value of the whole property, or than the price at which it could be sold, if sold at a fair price, whether the land and buildings were sold separately or together."

In other words, the Court puts it this way, at the end of its opinion :—

"The buildings cannot at the same time be removed from the land and remain on the land."

The other case, that of the *Troy Cotton Company v. Fall River*, 167 Mass. 517, is more instructive still, because, while it does not contain as careful and elaborate a statement of the principles of law which should govern the courts, it is more instructive because the actual facts are given, and they cannot be spelled out of the *Tremont & Suffolk Mills* case,—at least, I have been unable to do it. In the *Troy Cotton Company* case, the Court found that the value of the land, apart from the buildings and machinery on it, was \$150,000; that is to say, if the buildings were not on there, the land could be sold for that sum of money.

But the Court found that the same land, together with the buildings on it, everything included, was worth for mill purposes only \$78,000. And the Court allowed only \$78,000 as the value of that property, as, to quote the language of the Tax Statute, "its fair cash value on the first of May."

Of course, if that had been all there was in the case, if there had been nothing to value but the land and the buildings, then, according to the principles laid down in the *Tremont & Suffolk Mills* case, the value should have been found at \$150,000, because the owner would have dismantled the buildings and thrown them away, and have had his land to sell as land, for which, *ex hypothesi*, he could get \$150,000. But that was not all there was in this case. There was water power in addition, which was valued by the Court in connection with the uses to which it was put at \$33,846, and there was also \$266,000 worth of machinery upon the premises. So that it was not possible to treat the case as a mere dismantlement case where the land had increased so much in value that the owner could afford to tear the buildings down and throw them away and then reap the increased or enhanced value of the land, because in so doing the owner of the property would have lost the value of the machinery and water power.

The Court valued that property upon a very simple basis. It took, in the first place, the dismantlement value of the property,—the value of the land at \$150,000, which would be the dismantlement value of the land,—and it figured out what would be the dismantlement value of the buildings and machinery, which was \$186,000, the machinery being of such a character that it would have a considerable value upon removal. \$186,000 was the removal value of the buildings and machinery, which, added to \$150,000, the dismantlement value of the land,—that is, the value of the land as such,—would make \$336,000.

Now as against that they attempted to discover what was the value of the whole property — land, buildings, and machinery — taken as a whole in use; and they got at that by starting out with the assumption that the land and buildings together were only worth \$78,000, or not much more than half the value of the land

alone if the plant were dismantled. They added to this sum \$266,000 for the machinery, being its value in use, and \$33,846 for the water power; and these three items together amounted to \$377,846, or substantially \$40,000 more than the dismantlement value of the plant, but very much less, of course, than the valuation reached by the assessors by taking the value of the land as land at \$150,000 and adding to it the reproductive cost of the buildings and machinery. That figure was very many thousand dollars in excess.

Now the Court said that upon that comparison of figures the fair cash value of that property as a whole was not its dismantlement value on the one hand nor its value based on reproductive cost on the other hand, but the intermediate figure of \$377,846, reached by taking the value of the land for manufacturing purposes and ignoring entirely its higher value for other purposes, and then adding the value of the machinery in use. This case is better authority for our position that reproductive cost is not a conclusive test of value, and in the case of a manufacturing plant is a test of very little use whatever, than the more elaborate decision of the Court in the *Tremont & Suffolk Mills* case, because in the *Troy Cotton Company* case the figures are given from which the Commissioners can see the exact process adopted by the Court. The Court says —

Mr. COTTER. What justice wrote the opinion, Mr. Matthews, in the *Troy* case?

Mr. MATTHEWS. In the *Troy Company* case? I do not remember, sir.

I have quoted at length from these two decisions because the theory upon which this case has been tried for the Holyoke Water Power Company assumes, as I have stated, that it is competent to take the highest value of the land for any purpose as if it were unencumbered by buildings, and add to it the reproductive cost of the buildings and machinery, regardless of the value of the land for the purpose for which it is being used, — that is, the value of the land taken in connection with the buildings and machinery on it, and regardless of the capacity and mechanical utility of the plant as a whole, as a manufactur-



ing unit, or, to quote the equivalent expression in the Municipal Lighting Law, "for the purposes of its use."

Before passing from these decisions, I would like to refer to the statement of the theory of reproductive cost which is to be found in the brief submitted by the learned counsel for the city of Lowell in the *Tremont & Suffolk Mills* case, who was also senior counsel for the Holyoke Water Power Company in this case. It states the theory as well, I think, as even the ingenuity of my brother Brooks can do it when he comes to reply, and that theory was absolutely condemned by the Supreme Judicial Court of this State. Mr. Goulding says in his brief in the case in 163 Mass.:—

"The law requires the property to be looked at, not as a unit in any other sense than as a composite unit, whose component parts are to be separately valued and added together. . . . The land is not to be placed at an untrue and fictitious valuation, below its actual value, on the ground that otherwise the buildings and structures would have to be reduced in value. This is but another way of saying the land is to be valued and its value specified exclusive of the buildings."

"The law requires the property to be looked at not as a unit in any other sense than as a composite unit, whose component parts are to be separately valued and added together."

That was the theory advanced for the city of Lowell in the *Tremont & Suffolk Mills* case. It is the theory upon which this case has been tried for the Holyoke Water Power Company by the same distinguished counsel, and it was condemned in as emphatic language as could be used by a court of law in both the *Tremont & Suffolk Mills* case and in the *Troy Cotton Company* case.

This rule of valuation, that you must take the value of the property as a whole, applies not alone in tax cases, but throughout the law. Wherever property is to be valued, and whatever be the purposes of the valuation, that principle must obtain and can never safely be departed from. In cases of eminent domain, for instance, the rule is just the same. The petitioner in

a land damage case cannot ask the jury to value each separate part of his property and add them all together if the result is, as it may well be, more than the fair market value of the estate as a whole.

In the case of *In re Rugheimer*, 36 Federal Reporter, 376, which was a condemnation or eminent domain case, the Court ruled that the petitioner could have the value of the lot of land with the buildings thereon, taken as a whole, but that he was not entitled to a separate estimation of the lot and buildings themselves. So in the case of *Sloane v. Baird*, a recent case in the Supreme Court of New York, 42 New York Supplement, 38, which was an action for breach of contract to convey a manufacturing plant, the Court says that the "question is not what is the value of the separate elements of which the property is composed, but taking the property as it stands, in the place where it is located, as a whole, for the purpose for which it was intended." So in the well-known case in our State Reports, of *Providence & Worcester Railroad v. Worcester*, 155 Mass. 35, it was held that evidence of the market value of a gravel bank on the premises was properly excluded, the question being the value of the whole estate, and not the value of its component parts. So in *Manning v. Lowell*, in 173 Mass. 100,—which is the last case in our State Reports which has had occasion to deal with the attempt which every counsel for a petitioner in a land damage case would make if he could, to get a separate valuation of each item, hoping thereby to swell the verdict of the jury,—the Court says that evidence relating to the value of a particular element, in this case sand upon the premises, should have been excluded, as the question in the case was the market value of the land, and not the market value of the sand. There is a very excellent logical exposition—and therefore, Mr. Commissioner Turner, a legal irrelevancy, because I know no distinction between the two—of the fallacy in this theory of reproductive cost, when applied in this exaggerated fashion, in the opinion of one of the most distinguished jurists that this country has produced, Mr. Justice Cooley, in the case of *Page v. Wells*, 37 Michigan, 415. I commend the opinion in that case to the

attention of this Commission as containing perhaps, on the whole, the most lucid exposition that I have anywhere seen of the hopeless fallacy of thinking that you can get at the value of the whole of a plant by adding together the values of the separate parts, considered without relation with each other. Judge Cooley says: "We may say a thousand timber trees upon the premises are worth so much, a hill of gravel so much, a deposit of valuable clay so much, and, when all these are removed, the land is still worth something for agricultural purposes. Consequently, as it is, it is worth the aggregate of all these sums. But such an estimate of value is unfair and misleading," and so on. And so, in a late case in Maine, the case of *Ford v. County Commissioners*, 64 Maine, 408, it was held that you could not show the cost of value of some integral part of the plant as distinguished and separable from the value of the whole. You can show, of course, the value of a part in connection with the rest, — the valuation of manufacturing machinery or looms for the purpose of their use, or land for the purpose of a manufacturing establishment, — but you cannot take the value of any single element as if it were unconnected with and divorced from the rest, and continue that process to the end, and add the results together.

It is just as incompetent to take the value of the land and buildings separately, unconnected with each other, and add them together, without regard to the value of the parts in connection, as it would be to value two separate legal interests in the same estate, such as a mine and the fee, or a lease and a reversion, and add the two together. The fallacy of that mode of valuation is admirably explained in the case of *Logan v. Washington County*, 29 Pa. 373.

So much for the requirement of the law which imposes upon this Commission the duty of valuing this plant as a whole. It is not contended, of course, that that necessity prevents the Commissioners from considering the value of any particular part. On the contrary, in practice it may or may not be easiest to reach the value of the whole by considering the value of the component parts. But in applying that process, the authorities that I

have stated show conclusively that you must take each part at its value in relation to the rest, and that you cannot take each part at its highest value if it were unconnected with and separated from the rest, and add the results thus obtained together.

Yet that latter process is the theory, and the only theory of valuation, which the Holyoke Water Power Company has developed in this case. Every one of its witnesses has testified to an inflated structural value for this property, both gas and electric, reached by the preposterous and unlawful method of taking the value of the land at its highest value for any purpose, adding to it the cost — not the value, but the cost — to reproduce the buildings, wholly irrespective of their suitability or adaptability for the purpose for which they are being used, and adding to the result thus obtained the cost to reproduce the machinery, less depreciation from wear and tear, at every step and to the end ignoring the relative suitability of the several parts of the plant and their value as deduced from the necessary relation which they bear to each other as connected and inseparable parts of a manufacturing plant.

I pass now to the injunction found in the statute to value this property for the purposes of its use. It seems unnecessary to spend any time upon that phrase, except, perhaps, to indicate that that means, of course, in this case the value of the property for the purpose of manufacturing and distributing gas in the city of Holyoke, and the value of the property for manufacturing and distributing electricity in the city of Holyoke. This injunction of the statute would be supplied by the law if it were absent in the act; because property must be taken at its highest value for any purpose, and that is customarily its value for the purpose for which it is used. In this particular case there is no contention that this plant has a greater dismantlement value than its value in use. No one pretends that. It is not suggested by either side.

We can conceive, of course, as pointed out by the Court in the *Tremont & Suffolk Mills* case, of cases where the value of the land had so much increased that the owner could afford to dismantle the entire property, sell the land, and get more in

that way than he could by selling the property for the use for which it was built. And in such a case as that, of course, there would be a difference between the market value of the property as a whole and its value for the purpose of its use.

If, for instance, you had a gas plant established down on State Street, a relic of work begun perhaps a hundred years ago, in all probability the highest value it would have would be its dismantlement value, and yet that could not be awarded under this clause of the Municipal Lighting Law enjoining the Commissioners to value the property at its value for the purposes of its use. However, that possibility need not affect the deliberations of the Commissioners in this case, because there is no contention made by either side that this property is worth more for dismantlement than it is for use.

I now come to a clause in the statute —

Mr. BROOKS. Mr. Matthews, will you allow me to interrupt you?

Mr. MATTHEWS. Certainly.

Mr. BROOKS. Do I understand you to now agree that this property is to be valued the same as property taken by eminent domain?

Mr. MATTHEWS. I did not say so; but the contrary. I suppose you have reference to the point I was just discussing: if this property were to be taken by eminent domain, and it had a higher dismantlement value than a value in use, the higher value would have to be given; whereas under the Municipal Lighting Law the Commissioners are restricted to the value in use. That is an illustration of the possibility of securing more in a case of eminent domain than in a case under the Municipal Lighting Law.

Again, as I pointed out on Friday, there are many circumstances in which it is possible to conceive of property being properly valued in a case of eminent domain at more than its market value, and yet the Commissioners are restricted by the terms of this act to awarding the market value of the property. All the authorities which I referred to on Friday, as showing that in some cases more than market value can be obtained, indicate

that the rule applicable in cases of eminent domain does not apply in this case. That position will be found elaborated in the brief.

I would say, however, that the theoretic difference between the measure of recovery in cases of eminent domain and market value, which is all that can be given in this case, is not of much practical consequence here, except as applied to this test of reproductive cost; and it is for that purpose that I have dwelt so much at length in the brief and in the argument upon the difference between full value and market value, and also between full value and value for the purpose of some particular use.

I come now to a special clause in the statute which I fancy must have given the Commissioners some trouble if they have thought of it, and the construction of which I am free to say is by no means removed from doubt. It is the statement that no portion of the plant shall be estimated at less than its fair market value for any other purpose. This clause in the act begins by stating that the Commissioners must take this property at its fair market value. That would mean for any purpose. Then the legislature restricts that measure of damages by the addition of the words "for the purposes of its use," thus preventing the Commissioners from giving to the Company the full market value of its property if its market value for the purposes of its use is less.

If the Commissioners care to follow the act, it is printed in the brief on page 15.

Mr. BROOKS. It is Section 5 of the Act of 1893.

Mr. MATTHEWS. All the provisions of the Municipal Lighting Law applicable to this case, both the Act of 1891 and the Act of 1893, are printed in the brief,—at least, all that we suppose to be applicable.

Now apparently the legislature foresaw that such a rule of valuation might work injustice to the Company in certain supposable cases. It is possible to conceive, as in the case that I suggested, of a gas plant built upon land which had increased so much in value that its greatest value was for dismantlement

purposes, and therefore the legislature added another and apparently inconsistent injunction that no portion of the plant shall be estimated at less than its fair market value for any other purpose.

I suppose it is on the strength of that clause that the Company has founded its theory of valuation, that you can take the value of any part of the plant, however small, at its highest market value for any purpose; and, if you apply that process to every part of the plant, the final result is reached by a simple process of addition.

We submit with confidence that this section in the act is not capable of such a construction; for, if it were capable of that construction, one of two things would follow: either the Company would get more than the market value of the plant as a whole or it would get only the dismantlement value of the plant. The addition of this clause does not really help the Company except to the extent that the plant as a whole, or some distinct and severable portion of the plant,—some portion of it that can be separated from the rest without impairing the value of the rest,—has a higher market value for some other purpose than it has for gas or electric lighting. For instance, suppose the land at the Bridge Street holder, and the holder itself, and the machinery in it, are considered, as they may properly be considered, I think, as a separable, distinct, and severable part of the plant. That is to say, you can value that part separately, perhaps, without impairing the value of the rest of the plant. You cannot take a building and value that, and the land under it, and value that separately, and add the two together without reaching an inconsistent result. But you can take an isolated part of the plant, such as the Bridge Street holder, as a whole, and value it by itself; and, if the value of the land in that case was so great that the dismantlement value of the Bridge Street holder, including land, buildings, and machinery, was more than its value for gas purposes, you would have a case where this clause would apply. This clause is intended, in my judgment, to meet a case like that, in order that the Company shall receive full value for that part of its prop-

erty which can properly be severed and valued separately. Otherwise it would not receive the full value for the Bridge Street holder in the case supposed, because the Commissioners would be obliged to value the Bridge Street holder at its value for gas purposes; but, *ex hypothesi*, in the case I am assuming it is worth more for dismantlement purposes, and under this clause, as it stood before the addition of the words I am now considering, it would have been impossible for the Company to have recovered that higher value which we would all admit it ought to receive on this hypothesis.

I do not mean, of course, to admit that there is any evidence in this case, or any contention by anybody, that the land under the Bridge Street holder is so valuable as land that it is greater than the value of the Bridge Street holder as a whole in use. I am merely suggesting this possibility for the sake of illustration.

I might apply the same suggestion to the land under the electric light station, or to the site of the gas works in the river. In any of these cases,—as a matter of fact there is no such contention,—but in any of these cases, if the dismantled value of the plant, or portion of the plant, were greater than the value of that portion of the plant in use for gas and electric light purposes, then the Company, under the clause we are now considering, gets that higher value; whereas otherwise they wouldn't get it, because of the injunction contained in the preceding portion, to value the plant for the purposes of its use.

That, I submit, Mr. Chairman, is a reasonable interpretation of this clause. It is consistent with the general law of valuation. It gives to the Company everything that it is entitled to have, and it does not violate any of the principles of law which I have been discussing.

It is not competent for the Commissioners to construe this injunction, that no portion of the plant shall be taken at less than its fair market value for any other purpose, so as to permit a separate and inconsistent valuation of two things that go together, that cannot be separated for valuation purposes. You will not, under cover of that injunction, value the land, for instance, independently of the buildings on it; because if you do



you either give the Company more than the fair market value of its property as a whole for any purpose, or, taking the other horn of the dilemma, if you value the land at its higher value, you must take the buildings in dismantlement value, and the last state of the Company would be worse than the first.

There is no escape, Mr. Chairman, it seems to me, if you will study all the apparent inconsistencies of Section 12 of the Municipal Lighting Act as amended in 1893, from this conclusion: that the whole plant is to be taken at its value for gas and electric lighting purposes, unless some portion of it—meaning by the word *portion* something that can consistently with the principles of valuation be treated as an independent and separable portion—has a higher value for some other purpose, reached by dismantlement. If you find that some distinct and separable portion has a higher value for dismantlement purposes, you must award that higher value. But you cannot use that clause, as the Company would like to have you use it, to value each particular thing by itself, considered as if it were not related to the rest of the plant, take it at its highest market value, as if divorced from the plant, and add the results together; because you either reach the absurd conclusion that the Company under this act can get more than it could get in any case of eminent domain,—more than the value of the plant as a whole,—which result would be unjust to the City of Holyoke, or you do what would be unjust to the Holyoke Water Power Company, and give the land, for instance, its highest value for any purpose as if divorced from the buildings, and then value the buildings as if divorced from the land; that is, at their dismantlement value. The word “portion” as used in this clause must mean, not every foot of land considered by itself, not every building, nor every part of a building, not each item of machinery, nor each nail and board and brick and stone that is to be found in this plant, considered separately, as if you were to buy it in the market to-day; but simply such portion of the plant, if any, as is capable of use and valuation by itself, without reducing the value of the remaining parts to junk. And, of course, only in the event that such separable

portion of the plant is actually found to have a higher market value for some other purpose.

Here again it will not be necessary for the Commissioners to pay much more than a theoretic consideration to this injunction of the statute, because it has, according to the contentions and evidence of the respective parties, but little application to this case. There is no part of this plant, considered as a whole, there is no portion of the plant capable of independent and separate treatment, which can be assumed to have a higher value for any other purpose than that of manufacturing gas and electricity. The only application that I can suggest to this case is that which will be made when I come to discuss the question of water power and water plant. But of course there is the application which the Holyoke Water Power Company would like to have the Commissioners make, and get a separate valuation of the land, buildings, and machinery, as if each were unconnected with the others, and add the results together. That, we say, cannot be done under this clause any more than it could have been done without it.

The legislature, having given the City the benefit of a valuation for the purposes of its use, having given the City the benefit of a valuation at market value, having, on the other hand, given the Company the benefit of any higher value that some separable portion of the plant might be found to have, was not content to rest there, but felt that the mode of valuation thus prescribed might conceivably work injustice to the City, and therefore provided that, if any part of the plant was unsuitable, it should be omitted from the transfer.

This law, as I stated Friday, was evidently put together in the way such laws usually are,—the interests of the towns on the one side, the interests of the electric light companies on the other, pulling and hauling at the committee, each side suggesting some clause,—the result being first a clause favorable to the companies, then a clause favorable to the cities, and then a clause favorable to the company. That is the explanation of the successive injunctions to value found in Section 12 of the act as amended in 1893, taking them up seriatim. But, as I said on

Friday, if you will read that clause consecutively, if you will consider the order in which these various injunctions are set forth, if you will bear in mind the general principles of valuation, if you will consider the whole scope and spirit of this act, you cannot fail to reach the conclusion that the law has imposed one consistent and broad mode of valuation, just alike to the interests of both parties. It means simply this: that you shall take the selling value of this property, what it will sell for in the market,—not its higher value, if it has any higher value; that you should take its value for the purposes of its use,—that is, for the gas and electric light industry in Holyoke; and if you find that any distinct and separable portion of the plant has a higher value for some other purpose, you should, in justice to the corporation, award that higher sum, provided that portion of the plant at that higher sum—which you are not permitted to reduce—is suitable for the gas and electric light business in Holyoke. If, on the other hand, this separable portion of the plant is, by reason of the price at which you award it, unsuitable for the prosecution of the gas and electric light industry in that community, then you must leave it out of the transfer and valuation altogether. You must leave it out, because it is unfair to the City of Holyoke, which has no use for it except for a gas and electric lighting business in the city of Holyoke. You must leave it to the Company to reap its higher value by sale or use independent of the transfer to the City.

No injustice is worked to either side by this process, and I think that you cannot fail, upon a careful reading of the statute, and a consideration of the general principles of the law and the decisions applicable to the valuation of manufacturing property, to hold that the process I have unfolded is the limit of your jurisdiction in the premises.

I pass now to a distinct and separate branch of the argument—the Company's earnings.

I do not know to what extent it is desirable in an oral argument to dwell upon the attempt made by the Holyoke Water Power Company to secure a franchise valuation in this case.

I can hardly conceive, in view of the authorities, that any attention whatever will be paid by the Commissioners to that contention. We have, however, with some elaboration set forth in the brief what we conceive to be the law upon this subject, and I will run through it briefly.

In the first place, the Commissioners will note the use that has been made of the assumed earnings of the Company by the witnesses for the petitioner. They do not use the earnings of the Holyoke Water Power Company as evidence of value at all. They use them outright as a distinct and separate element of value by capitalizing them. No other use whatever has been made by any of the witnesses for the Holyoke Water Power Company of the earning capacity of the Company than to capitalize the assumed net earnings.

Now that might be a proper mode of valuation if the franchises of the Company were involved in this case. It would not be a conclusive method, as was held by the United States Supreme Court in the *Long Island Water Supply* case; but it would be a fair method,—it would be one way of getting at the value of the Company's plant and franchises and business. It is a wholly inapplicable method as applied to a valuation of the Company's property alone. I have stated that the process adopted by the Company's witnesses is uniform and simple. They are told what the net earnings are,—they are not told correctly, of course, but they are told something; and they proceed to capitalize that amount at 4 or 5 per cent., and they say the figure thus obtained is the value of the plant. What they mean, of course, as appears upon cross examination, is that that is the value of the Company's plant, franchises, business, and good will.

So much for what the witnesses for the Company actually do. Now the first proposition of law to which I desire to direct your attention in considering this process is that such a valuation is necessarily a franchise valuation, and not a valuation of property. If there is any proposition of law which is well settled in this State and elsewhere, it is that anything which takes into account the business earnings of a public service company results in a

valuation of the franchises of the company, and not simply in a valuation of its property. That alone would seem to be a sufficient reason why the Commissioners should pay no attention whatever to this line of evidence.

But there some contention will be made, I suppose, that, while what the witnesses for the Company have actually done is to capitalize the net earnings or the assumed net earnings, yet that really amounts simply to an expression of opinion by them as to the value of the Company's property, taking in the earnings as evidence with other pertinent facts. It is very clear from the authorities that are cited in our brief that that process cannot result in a valuation of the Company's property alone. But the contention may be made that it is simply one of the elements or data which the witnesses for the Company take into account in reaching their property valuations. And I desire now to call attention to the rule of law that the profits and earnings of a business carried on upon the property are inadmissible as matter of law by way of evidence or otherwise to affect the valuation of the property itself.

I will ask the Commissioners to go with me through the law of valuation for the purpose of being convinced that earnings are in every case to be excluded where the sole question before the Court is the value of property.

In the first place, as to cases of eminent domain, evidence of earnings is not admissible to show the value of the property taken where it does not consist of franchises, but simply of tangible property or incorporeal easements. The rule of law, as we understand it, is this: that the nature of all the business purposes for which the property is or can be advantageously used can be shown, but not the amount of money that can be or is made out of a business carried on upon the property.

There is a long list of authorities in this State, beginning with the case of *Boston & Worcester Railroad v. Old Colony Railroad* in the 12th of Cushing, in which the Court said that the fact that the petitioner "was doing a large and profitable business was not a proper consideration for enhancing the damages," to the last cases upon the subject, which are *Sawyer v.*

*Metropolitan Water Board and New York, New Haven & Hartford Railroad v. Blacker.*

Mr. BROOKS. What page is that of your brief ?

Mr. MATTHEWS. 87, Mr. Brooks.

The CHAIRMAN. What page ?

Mr. MATTHEWS. 87. I would not object if the Commissioners would follow me at this point, because I am not going to spend very much time in oral amplification. If Mr. Commissioner Cotter will follow the brief, I should not consider —

Mr. COTTER. Yes. I am familiar with the *Blacker* case.

Mr. MATTHEWS. I should not consider that it would impede the argument.

Mr. COTTER. In regard to the brief, I understood something was said to the effect that we were not to look at the brief until —

Mr. MATTHEWS. No, I do not understand so.

Mr. BROOKS. My objection was specially made to the brief on the facts.

• Mr. MATTHEWS. Possibly, my brother before he gets through will conclude that both parts of the brief are equally objectionable.

Mr. COTTER. The *Blacker* case I am familiar with.

Mr. BROOKS. So far as you have gone, I do not see any application to the case at bar in your brief, so I think it is objectionable on that ground.

Mr. MATTHEWS. I was saying that we have a long line of authorities in this State, beginning with the case in the 12th Cushing and ending with the two cases in the 59th N. E. Rep., holding that under no circumstances whatever in a case of eminent domain can evidence of the profits or the earnings in the business carried on on the premises be admitted to affect the value of the property. Whereas, if a franchise is involved, the earnings are admissible. And the law in this State upon this point is substantially what it is elsewhere in the United States ; there is no conflict of authority upon this general proposition. You can search the authorities in any jurisdiction in the United States, and you cannot find a well-considered case holding that

evidence of profits or business earnings is admissible to affect the value of property taken by eminent domain. You will find that in some jurisdictions, where there has been a partial taking, or where there has been a temporary taking or damage done, or where there has been an outright taking but some temporary damage sustained in addition to the loss of the fee, evidence of earnings is allowed for the purpose of estimating the amount of temporary damage sustained. That is the rule, for instance, in Illinois and Michigan, but it is not the rule in Massachusetts, New York, Pennsylvania, or generally throughout this country, where, even for the limited purpose that I suggested, evidence of earnings is excluded. So in some jurisdictions, where the petitioner's estate is a leasehold, it is permissible to show evidence of profits as bearing upon the value of the qualified estate in the freehold which he held and as bearing upon the temporary loss sustained by him through the necessity of procuring other quarters in which to carry on his business. That, again, is the rule in Illinois, and that was the rule laid down by Chief Justice Shaw in this State in the case of *Patterson v. Boston*, following an intimation in the prior case of *Brooks v. Boston*; but that for many years has not been the law in this State. It was overruled in *Edmands v. Boston*, 108 Mass. 535, and all that the tenant can now recover in this Commonwealth is the value of his lease and the amount by which, if any, the value of the freehold has been increased by his improvements. He can get nothing whatever for the temporary inconvenience of removal, and he cannot introduce evidence of loss of profits for any purpose.

That rule was first finally established by the case of *Edmands v. Boston*, just cited, followed by *Cobb v. Boston*, 109 Mass. 438; by *Williams v. Commonwealth*, 168 Mass. 364, and reaffirmed in the last case of all, that of the *New York, New Haven & Hartford Railroad v. Blacker*.

Mr. COTTER. What page of the brief are you on?

Mr. MATTHEWS. 91, sir.

In like manner it was intimated in one of the earlier Massachusetts cases that evidence of loss of profits could be shown

as affecting the good will inhering in real estate; but that suggestion, first intimated in *Patterson v. Boston*, was overruled by *Edmands v. Boston*, and ever since that case it has been the well-established rule in this State that if property has been enhanced in value by reason of any good will inhering in the property or arising from the business carried on upon the premises, that can be used as an element in the value of the land, but you cannot show it by introducing evidence of the profits derived from the business carried on upon the premises. In other words, the rule in this State in cases of eminent domain may be summed up in this way: that the utmost extent of the permission granted by Chief Justice Shaw in the case of *Patterson v. Boston* was to admit evidence of loss of profits during the temporary period of the disturbance to the tenant's business, but even that slight departure from the general rule is no longer recognized as law in this State.

There is one case to which I desire to refer at this point, and which may perhaps be argued to have introduced or to have countenanced some deviation from this general rule, and that is the recent case of *Pegler v. Hyde Park*, 176 Mass. 101, a case not so recent as the *Blacker* case, but a case in which, owing to the peculiar circumstances shown to the Court to exist in that case, evidence of the amount of business carried on upon the premises was allowed to be introduced. The property in that case had been so altered that the jury could not view it in the condition at the day of taking. It was greenhouse property, and the buildings had been destroyed; and there seems to have been some contention in the case as to whether the land had any special value for that purpose. The Court allowed the petitioner to show the amount of business done, as bearing upon the capacity of the land for that purpose or use, but upon proper instructions to the jury that no damages were to be allowed for the injury to the petitioner's business or good will.

In regard to that case I may say that my own judgment is that it will meet the fate of *Patterson v. Boston*. It is, on the face of it, a slight deviation introduced to meet the peculiarities of that particular case, just as Chief Justice Shaw thought the



tenant in *Patterson v. Boston* ought to be allowed to show the damage to his business during the period of removal. But it will be used by every counsel for every petitioner in a land damage case in this Commonwealth to swell the damages that the jury will give by working in the profits of the business carried on upon the premises as tending to show a capacity of use. I have very little doubt that this deviation from the regular rule of law will itself be overruled about as rapidly as was *Patterson v. Boston*. In fact, I apprehend that the first time a petitioner in an ordinary land damage case attempts to get in evidence of the amount of business that is done upon the premises and of the profits that his client has reaped, the Court is going to say that they did not intend anything of the sort in *Pegler v. Hyde Park*. But even if they do not, even if that case stands, it simply means that under the peculiar circumstances of that case, where the property has disappeared from view, the jury might gain some assistance in determining whether or not it had a value for the purpose for which the petitioner claimed it was being used by considering the amount of business that the petitioner was actually doing.

Such a slight deviation from the general rule has no application to this case, because the property is still extant, it is still being used for the purposes for which it was in use in January, 1898. It has been seen by the Commissioners upon repeated occasions, and there is no contention that the property has no capacity for the gas or the electric light business — none whatever. On the contrary, I apprehend that both parties claim that the value of this property for the gas and electric light business respectively is its highest value for any purpose, so that the special circumstances which induced the Court — with great hesitation, as the Commissioners will note in reading the opinion — to countenance a slight deviation from the general rule in *Pegler v. Hyde Park* do not exist in this case. It is, therefore, incompetent for the Commissioners to deviate from the general rule in this case, even to the extent countenanced in *Pegler v. Hyde Park*.

In the law of eminent domain, to sum this matter up, the

rule is that where property is taken outright, not merely some qualified, partial, or temporary interest in it, and where no question of franchises is involved, you cannot show the amount of money that is being earned in the business carried on upon the premises to affect or enhance the value of the property itself.

And that is the rule throughout the law of valuation,—not merely in cases of eminent domain, but in insurance cases, in tax cases, in actions of trover, and in miscellaneous actions of tort or contract. A sharp distinction is drawn between the valuation of property and the estimation of damages to business. In many cases of contract, of course the essence of the cause of action is a damage to business. So in actions of slander and libel, and in other branches of the law which I need not particularize. But wherever in an action of tort or in any other legal form of procedure the sole question is the value of property in its entirety at a given date, the Court is not permitted to contemplate the amount of money which the owner of that property may have made in the business carried on by it.

In trover, for instance, it frequently happens that the entire property has been destroyed or that the title is vested in the defendant in the action; and the rule is the same as in cases of eminent domain,—evidence of profits is excluded. That will have been found to have been decided by the Supreme Court of Pennsylvania in the case of the *Erie City Iron Works v. Barker*, 106 Pa. St. 125, and by the New York Court of Appeals in *Wehle v. Haviland*, 69 N. Y. 448, 451. So in a Massachusetts case, an action based upon the non-payment of money, *Greene v. Goddard*, 9 Met. 212, 231-2.

Then we have a long list of actions of tort for a total loss of property through negligence or fraud. And in those cases it is uniformly held that the plaintiff can recover nothing beyond the value of the thing destroyed, and that, in order to show that value, he cannot introduce evidence of earnings or of profits.

So, in an action against an insurance company for a total loss, evidence of business profits is not admissible. That has been the law ever since *Wright v. Pole*, 1 Ad. & El. 621.

So, in the case of a total loss by collision at sea, the damages

are limited to the value of the vessel, and do not include the profits of the charter party. That has been held by the United States Supreme Court in the case of *The Umpire*, 166 U. S. 404.

The same rule applies where property is being valued for taxation purposes, and upon this point I will call particular attention of the Commissioners to the case of *People v. Martin*, 48 Hun, 193, which was a case involving the value of a gas works for the purposes of taxation.

Throughout the law, wherever courts or juries or commissioners are entrusted with the duty of valuing property, physical, tangible property or rights and easements, in its entirety, there can be found no well-considered exception or qualification to the rule that the attention of the tribunal must be confined to the value of the thing taken or destroyed, and cannot be devoted to a consideration for any purpose of the amount of money that the owner of that property can make by using it in combination with his individual skill, his financial capital, his trade marks, his reputation, and in cases of public service companies a franchise which he may have to use the public streets.

So much for the general rule of law applicable to the question of earnings in cases involving the valuation of property. If there were nothing in this act at all upon the subject, it would be incompetent for the Commissioners to consider the earnings of the Company for any purpose whatsoever. But the Commissioners are not left to settle this question according to the general rules of law. They are entitled to rely to some extent, at least, upon the express injunction of the Municipal Lighting Act, which amounts to forbidding the Commissioners to take evidence of earnings or earning capacity into account. The law provides, in Section 12, as amended in 1893—

Mr. BROOKS. The amendatory section is 5.

Mr. MATTHEWS. Yes. The law provides that the property shall be valued at its fair market value for the purposes of its use, without enhancement on account of future earning capacity or exclusive privileges derived from the use of the public streets. Now there is an express injunction to the Commis-

sioners to exclude future earning capacity, and a question may arise as to what the meaning of that phrase is.

Our contention is that that injunction leaves the law, as many of the other injunctions in Section 12 of the Municipal Lighting Act do, exactly as it would have been without it,—that is, in the valuation of property you cannot take earnings into account ; and this clause was put in, as clauses often are in public statutes, *ex majore cautela*, simply to be on the safe side, to assure that by no possibility of error could the Commissioners entrusted with the valuation of property under this act work any element of earnings into their valuation of the Company's property. There can be no answer to this plain provision of the law, except the suggestion, more disingenuous than ingenious, perhaps, that the direction to exclude future earning capacity permits the Commissioners to consider present earning capacity or past earning capacity.

We have considered that suggestion with considerable care in our brief. At the oral argument I will simply rehearse the matter, as it lies in my mind, very briefly. The rule of construction which is invoked, or which must be invoked to reach such a conclusion, is the rule of *exclusio unius alterius expressio*, that where the legislature says that one thing shall not be done, it means that something else shall or may be done. That contention, that application, or rather misapplication of a rule of statutory interpretation, well recognized as having a proper application in certain cases, is the foundation of the claim that the Commissioners can take into account the present or past earnings of the Company, notwithstanding the fact that they are prohibited from taking into account the future earnings of the Company.

Now, in the first place, as to the rule of *unius expressio*. It has not any application, except where the other things themselves are enumerated. A penal statute prohibiting the doing of one thing does not permit the doing of something else. In order that this principle of interpretation should have any application whatever, the statute must enumerate a series of things, or several things, as being conceivably permissible, and then, by specifically forbidding the doing of one of them, the implication

arises that the doing of the rest is permissible. You will find it well and carefully explained in the books on statutory interpretation that this rule has no application whatever where the other things are not mentioned, and that is the case here. There is no mention of present earnings, there is no mention of past earnings in this act. If, for instance, the act had in terms referred to the present earnings of the Company and to the past earnings of the Company, or had referred generally to the earnings or profits derived by the corporation from the business of gas or electric lighting, and had then gone on to say that the Commissioners should not use the future earning capacity of the Company to enhance the value of the Company's property, there would be some force in the suggestion; there would be some ground for the application of the rule of *unius exclusio*. But the Commissioners will search this law in vain for any reference to earning capacity, except these three words. It is not mentioned elsewhere in the law, either in the Act of 1891 or in the Act of 1893.

Again, what do the words "future earning capacity," taken by themselves, mean? In order that there should be any room for the application of the rule of *unius exclusio*, those words, "future earning capacity," must mean increased earning capacity as distinguished from that future earning capacity which is the same as present or as past earning capacity. For this rule, of very infrequent and doubtful application, anyway, to have any standing before the Commissioners as applicable to this case, you must construe the words "future earning capacity" in a narrow, restricted, and artificial sense, as bearing one only of two possible significations, and that the most unlikely.

What is future earning capacity, anyway? *Prima facie*, it is the amount of money a plant, or the owner of it, can earn in the future. Present earning capacity is of no consequence to the purchaser of a plant if the earning capacity is not going to be maintained in the future, and of course the earning capacity of the plant in the past is of no consequence. By "future earning capacity" *prima facie* must be intended simply the amount of money that can be got by the owner of that plant,

net or gross, and that is of course predicated upon the present earning capacity of the plant, or what it can be shown to have done in the recent past. Consequently, the exclusion of the greater involves the exclusion of the less. The exclusion of future earning capacity involves, *prima facie* at least, the exclusion of present earning capacity, or earning capacity at any given point or in any given period of time.

So that, whether you approach this clause in the act with the desire to ascertain the *prima facie* meaning of the words, or whether you seek to see if there is any room for the rule of *exclusio unius*, you must reach the conclusion that when the legislature said that all consideration of future earning capacity should be excluded they meant all consideration of what that plant is earning, was earning, might earn.

But there is one more, and an absolutely conclusive argument. In the Act of 1891 the legislature permitted the Commissioners to consider the present earning capacity of the plant. The Commissioners were authorized by the Act of 1891, which was the first form in which the Municipal Lighting Law was passed, to include:—

“as an element of value the earning capacity of such plant based upon the actual earnings being derived from such use at the time of the final vote of such city or town to establish a plant.”

Then the act went on to say that there should be allowed

“no enhancement on account of future earning capacity.”

The CHAIRMAN. Will you read that over again?

Mr. MATTHEWS. This is the Act of 1891.

“including as an element of value the earning capacity of such plant based upon the actual earnings being derived from such use at the time of the final vote of such city or town to establish a plant.”

That was the earning capacity of the plant or of the Company exactly as it has been testified to in this case. That is, the Company's witnesses take the earnings or the assumed earnings of the Company in its gas and electric light depart-

ments at the time of the passage of the final vote, which was December, 1897,—or, more exactly, they take the assumed earnings for the gas year running from July 1, 1897, to July 1, 1898.

Now that was a permissible thing under the Act of 1891. But this clause was repealed in 1893. It was found a dangerous clause, not only, I may suggest, Mr. Chairman, from the standpoint of the cities, but also from the standpoint of the companies; because it might well be that the Company was not earning any money. It might well be that the plant would have a higher value for the purposes of its use as a manufacturing unit than was indicated merely by the net earnings of the Company at the time of the final vote. As a matter of fact, the first case to arise under the Municipal Lighting Law of 1891 was the *Wakefield* case, and in that case the plant had not got into operation and there were no earnings.

And so, apparently by common consent, that is, by consent of both parties to the controversy, the cities on the one side and the companies on the other, the Act of 1891 was amended in 1893 so as to prevent a consideration by the Commissioners of the earning capacity of the plant; or, to use a more accurate expression, to prevent the consideration by the Commissioners of the amount of money that the owner of the plant can make out of it.

Is it possible for any argument, however ingenious or sophistical, to convince this board, or any court of law, that when the legislature of 1893 deliberately repealed a provision aptly drawn to secure the consideration of present earnings, it meant that those earnings should still be considered? It seems to me that the question has only to be asked to indicate its answer. The law was before them. Its meaning was perfectly plain; and its consequences, both to the cities on the one side and to the companies on the other, were not difficult to foresee. Under those circumstances the legislature repealed this provision. And yet I suppose it will still be argued, in the face of that repeal, that these Commissioners can do under the Act of 1893 what they might have done under the Act of 1891, notwith-

standing the repeal of the only clause in the Act of 1891 which would have permitted them to do it. If such a rule of construction is to obtain, the law books will have to be rewritten, the decisions of our courts will have to be reversed, and a novel proposition will be announced,—that, when a State legislature repeals a law, it means to re-enact it; that, when it has given permission to public officers to do a certain thing and then withdraws that permission, the withdrawal is to be considered as nugatory, and the public officers are still to do what they might have done before.

I might amplify the argument by referring to the absolute exclusion of good will by the terms of the Act of 1893, and there is no qualification of "future" there. It is good will, anyway, that is excluded; and the good will of a gas and electric light company or any other public service company has been defined to mean, not what it means in the case of an ordinary manufacturing enterprise, the name, the trade mark, etc., but simply the earning capacity of the property. That is evidently the only good will of a public service corporation, which has no patents and does not manufacture anything peculiar. It was held by the House of Lords in the *London Tramway* case, as stated by the learned justice who delivered the opinion in that case, speaking of a street railway company, a public service corporation, that "Good will is only the capacity of making future profits."

I have now considered in a general way the subject of earnings both from the standpoint of the common law and from the standpoint of this statute; and the next step is to discuss such authorities or express decisions as can be found in the law books bearing upon the interpretation of this or similar statutes. On pages 102 to 104 of the brief will be found a brief enumeration of the different forms of law providing for municipal ownership that have been passed in Massachusetts since the early part of the nineteenth century. The conclusion which I draw from a study of those statutes is that in Massachusetts the legislature knows perfectly well the distinction between a franchise valuation and a property valuation, and, when it means that a fran-



chise shall be valued as well as property, it says so. That is, perhaps, the only conclusion that can be drawn from an inspection of those laws.

Municipal ownership has been authorized by our legislature in many forms and upon many conditions, and the particular form of the conditions precedent to municipal ownership which we have in this act is a Massachusetts idea: municipal ownership on condition of compulsory purchase at the option of the company. That is a distinctly Massachusetts idea, not based upon English precedent; because the Electric Lighting Act in England and the Tramways Acts do not provide for compulsory purchase at the election of the company, but for an outright transfer of title, anyway. So that, in so far as the option of the company is concerned, this is a special Massachusetts idea. It first appeared in the Municipal Lighting Acts of 1891 and 1893, it was followed in 1894 in the Newburyport Water Act, in 1895 by the Gloucester Water Act, and in 1897 by the Wakefield Water Act. I have not run the statutes down since then; I do not know whether there have been any further extensions of this idea or not.

The CHAIRMAN. I believe there came very near being another one, but it didn't happen.

Mr. MATTHEWS. Yes, I have heard of various attempts. So there are four statutes in this State that were passed prior to January, 1898, involving this principle of compulsory purchase by the town at the option of the private company; and, as it happens, two of those acts have been subject to judicial interpretation by our Supreme Court, and one of them by the United States Circuit Court for this district also.

Mr. BROOKS. In the Newburyport and Gloucester Acts wasn't the franchise specially excluded from valuation?

Mr. MATTHEWS. Yes. I am going to consider that in a moment. I should also note in passing another act of similar purport, the Bay State Gas Company Valuation Law of 1893, Chapter 474.

There have been several judicial decisions involving the construction of similar laws. There have been two in Massachu-

setts, there have been three in England, and there has been one in the United States Court in Missouri; and I invite the attention of all the members of this Commission to the review of those decisions which will be found in the pages of this brief,—to the quotations from the opinions of the learned justices,—and particularly to note the ingenuity with which the companies try to work a franchise valuation into the case under cover of evidence of value, and the strictness with which the courts have eliminated all such considerations.

The English cases are those of the *Stockton & Middlesborough Water Board v. Kirkleatham*, *Edinburgh Street Tramways Co. v. Edinburgh*, and *London Street Tramways Co. v. London County Council*. They were all decided in the House of Lords in 1893 and 1894, and they hold, in substance, that under statutes providing for a valuation of property it is not competent to give evidence of earnings, either for the direct purpose of including earnings as an element of value or for the indirect purpose of using them as an evidence of the value of the company's property. The *London Tramway* and *Edinburgh Tramway* cases are peculiarly important, because they arose under an act which served as a model for the Municipal Lighting Act of 1891. The language of that act is in many particulars word for word with that of the Municipal Lighting Law; it differs in some.

The *Kirkleatham* water case arose under a statute authorizing one public water board to take the works of another public water board, and the contention of the public board which lost its works was that the value of the pipes, mains, and so on—it was nothing but a distribution system—was to be measured by the revenue derived from their use. But that contention was rejected because, as the Court said, it involved “not the price of the mains, pipes, and fittings, but the price of the mains, pipes, and fittings coupled with certain statutory rights.”

The *Tramway* cases came up under the London Street Tramways Act of 1870 and the General Tramways Act passed in the same year, and the language of the purchase clause was the same in both acts. It was this: that the Court should take into account “the then value”—that is, the value at the time of the

exercise by the city of its option to take the property—" (exclusive of any allowance for past or future profits of the undertaking or any compensation for compulsory sale, or other consideration whatever) of the tramway and all lands, buildings, works, material, and plant of the promoters suitable to and used by them for the purpose of their undertaking."

The Commissioners will note many of the words which I have just read as appearing in the Municipal Lighting Law of 1891 and 1893. Note particularly "suitable" and "used."

Now in both those cases, which received the most careful consideration in the inferior courts and also in the court of last resort, the House of Lords, every conceivable effort was made by the companies to introduce evidence of the amount of money they were making; and in support of those efforts they used exactly the same arguments that you will listen to from my brother Brooks next week. All I will ask you to do is to compare his argument, when he makes it, upon this question of earnings with the arguments that were made and reviewed by the Court in these two tramway cases. You will be unable to distinguish between them.

In the first place, take this question that I have just been discussing, of the application of the rule of *unius exclusio*. You will notice that the English act read, "exclusive of any allowance for past or future profits." Well, of course the ingenious counsel for the London Tramway Company said, just as my friend Brooks is going to say next week, that that did not exclude from the consideration of the Court the *present* profits of the company. The Court commented upon this argument, and decided, I think with unanimity, that it had no merit whatever.

Then it was attempted, in both these cases, to work in the earnings of the companies as evidence of the value of the undertaking, the tramway, as a whole. They said, The tramway means something more than the physical property: it means the undertaking, the enterprise, the whole thing. That argument gained some support in one of the lower courts, which decided that evidence of earnings was admissible; but the court

of last resort held otherwise, and excluded evidence of earnings for any purpose.

Counsel for the companies in these cases also tried to work in the profits of the company as if they were rent, but the Court held that the profits that you can make out of a business enterprise bear no similitude to the rental value of real estate, which of course is always admissible in a valuation case as evidence of value, and excluded the earnings for that reason.

It was also held by the House of Lords that earnings would have been excluded even if it had not been for the parenthetical words of the statute. The words which I read to the Commissioners a minute ago, "exclusive of any allowance for past or future profits of the undertaking or any compensation for compulsory sale, or other consideration whatsoever," appear in the London Tramways Act in a parenthesis, and therefore they are referred to in the opinions as the "parenthetical clause." Now the Court held that the rule of valuation would have been just the same, and that all evidence of the earning capacity of the property or of the company owning it would have been excluded, if this parenthetical clause had been omitted from the statute; just as in the case of the Municipal Lighting Law the qualifications and limitations upon the power of the commissioners were inserted *ex majore cautela* simply, and not for the purpose of changing what would otherwise have been the rule of valuation.

In noting the distinctions between the English cases and the Municipal Lighting Act, pointed out on page 110 of the brief, I desire to call attention to the Kansas City case, *National Water Works v. Kansas City*.<sup>\*</sup> I have endeavored to point out that the difference between the Municipal Lighting Law and the English acts is, in the first place, that the general rule of law in England is different from that in the United States, evidence of profits being admissible in England in ordinary cases where property, unaccompanied by franchises, is taken by eminent domain. That is not the rule in this country; it is the

<sup>\*</sup>62 Fed. Rep. 853.

rule in England. Secondly, that in the English Tramways Act the franchises of the company passed to the city in express terms; and yet, notwithstanding that, the Court held that no evidence of earnings should be taken into account because the act provided that the company should receive compensation for its property only. In the third place, the taking under the London Tramways Act is not a voluntary proceeding on the part of the company, as it is in Massachusetts. There is no element of voluntary surrender under the English law. The London County Council simply votes to take the property. The company has no option of surrender and no option to continue in its business, as is given in Massachusetts.

The case in the Federal Court of the *National Water Works* against *Kansas City* involved the construction of a law which I have cited, because the decision in that case was the origin of a point which will be of considerable importance in this case,—that is, as to the propriety of giving an allowance for the value of a manufacturing or water plant as a going concern. The act itself, however, is not framed upon lines parallel with English law or the Municipal Lighting Act. In fact, it is quite different. The act provided a franchise to operate in Kansas City; and at the expiration of twenty years the city could either renew the franchise or purchase the company's works at a judicial valuation, at the fair and equitable value of the whole works. There were no words of exclusion, no words of qualification, no words of direction to the Court as to the mode of valuing that property. The act was drawn with nothing like the care which is characteristic of the English statutes and of the Massachusetts law in this case. Commissioners were appointed, and they found a value of \$2,714,000. But they omit to state how they reach that result; and it is impossible, upon reading that case, to determine how they reached that valuation, except that they say they omitted the earnings and the franchise value of the works.

The CHAIRMAN. I must confess I agree with you on that, Mr. Matthews. I was unable to tell how they arrived at it.

Mr. MATTHEWS. We have taken great pains in this case to search the original documents in each one of these cases, and we can't get the slightest light on this point.

Now the company in that case, Mr. Chairman, tried, just as they tried in the English cases, and just as they are trying in this case, to work in the earnings of the company. They said: Here is a great water works, earning so much money. If we were to capitalize that at six per cent.—they hadn't the nerve to suggest five per cent. or four per cent.—we would get a valuation of four million, five hundred thousand dollars, about double the value of the property as found by the commissioners. The company appealed on the ground that the commissioners had not taken into account the earnings of the company. The Court rejected the appeal on that ground, and stated that the earnings of the company were not properly to be capitalized, saying it was not proper to enhance the value of the property by reason of the amount the company earned. The Court did, however, add ten and one-half per cent., or two hundred and eighty-six thousand dollars, to the award of the commissioners for the value of the property as a going concern. I shall have occasion to consider the reasons for that addition when I come to discuss what is meant by value as a going concern. At the present point I desire simply to call the attention of the Commissioners to the fact that that case also, as well as the English cases, is point blank authority for the exclusion of evidence of earnings so as to enhance the value of the property, even in a case where there is no statutory direction of any kind with respect to earnings.

The *Kansas City* case is like the *Municipal Lighting* case in one respect, and in that it differs from all the other cases I am considering now. That is, the franchise of the company ends, goes out of existence entirely, as it does in the case of the *Municipal Lighting Law*.

Coming down to the Massachusetts cases, there are two. Both the Newburyport Water Act and the Gloucester Water Act got into court, and the result in the two cases was long and expensive litigation and judicial valuations by commission-

ers, of whom the Chairman of this Board was a member in both cases; both cases went up to the Supreme Judicial Court of this State; and in both cases the award of the commissioners was confirmed.

The Newburyport Water Act provided that, if the Newburyport Water Company should desire, it could notify the city of Newburyport of its desire to sell all the rights, privileges, easements, land, and property of the company; and in that event the city must purchase the same, either at an agreed price or, in case of failure to agree, at a judicial valuation which should turn upon the fair value of the property for the purposes of its use by the city. "Such value shall be estimated without enhancement on account of the future earning capacity or good will, or on account of the franchise of said company."

Let me call your attention to the points of similarity and of dissimilarity between that statute and the Municipal Lighting Act. In the first place, there is an express exclusion of the franchise of the company from the valuation. And there is no such express exclusion in the Municipal Lighting Act.

Mr. BROOKS. What page is that on, Mr. Matthews?

Mr. MATTHEWS. I am on page 113, sir, and I will call the attention of the Commissioners particularly to this point, because Mr. Brooks mentioned it a moment ago.

The commissioners were directed in that case not to enhance the value of the property on account of the franchises of the company — why? Because, by the terms of the act, the rights and privileges of the company were to pass to the city; and certainly it would be contended by any lawyer that among the rights and privileges of the company would be its franchises. You cannot have any expression broader than "rights and privileges." Therefore, if it had not been for these words of exclusion, it might have been contended by the company that the franchise to sell water in the city of Newburyport and to occupy the streets for that purpose was to be paid for as property, as it would have had to be paid for if the company's rights had been taken by eminent domain.

That is the reason in the *Newburyport* case, and also in the

*Gloucester* case, for the express exclusion from the award of the franchise of the company, whereas in the Municipal Lighting Law no such direction was necessary; for the franchises of the Company do not pass to the city under that law, but cease and determine, as I pointed out last Friday. Otherwise the act is very much the same. "The fair value of the property for the purposes of its use, without enhancement on account of future earning capacity or good will." Those are literally the same, word for word, and they are, of course, copied from the Municipal Lighting Law,—from the Act, however, of 1893, and not from the Act of 1891, although, singularly enough, the learned judge who wrote the opinion seems to have thought it was the Act of 1891. As a matter of fact, they are taken from the Act of 1893, as appears from an inspection of the two acts. The Newburyport Act was passed the year after, and of course the matter was fresh in the minds of the legislature. Now under that act, Mr. Chairman, what did the commissioners do? They found the value of the property as such. They rejected all evidence of earnings for any purpose, and they added a sum—I think something like 15 or 17 per cent.—for the value of the plant as a going concern; and the Court sustained the award, particularly the exclusion by the commissioners of the earning capacity and the earnings of the company, as evidence or as an element in the valuation of the company's property.

Before passing from the *Newburyport* case I might call attention to the fact that the Newburyport Act prescribed that the commissioners should find "the fair value," the word "market" being left out, as contrasted with the Municipal Lighting Law. It was not "the fair market value," but "the fair value." I do not know that any significance is to be attributed to that difference, but I note it in passing.

The principal point that I desire to call attention to is that, if it had not been for the express exclusion from the award of the company's franchises, the company would have had a very strong ground to contend that the city had acquired its franchises under the sale of its rights and privileges, and that those franchises should be paid for as property. They are, of course, property in a sense.



Now the act in the *Gloucester* case was an act of substantially the same import. The law was construed in the same way by the commissioners; they valued the property as best they could; they added a percentage, smaller than in the *Newburyport* case, for its additional value as a going concern; and they excluded all evidence of earnings. The Court sustained the award in every particular material to this case. Two of the items found by the commissioners were rejected, but they had to do with the question of water rights, and I need not refer to them here and do not in the brief.

The CHAIRMAN. One.

Mr. MATTHEWS. I beg pardon?

The CHAIRMAN. I don't care, but you might as well be accurate; one.

Mr. MATTHEWS. Was I not accurate?

The CHAIRMAN. No, one.

Mr. MATTHEWS. I will leave it out, then.

The CHAIRMAN. You need not trouble yourself.

Mr. MATTHEWS. I thought that they did reject \$20,000.

The CHAIRMAN. They did.

Mr. MATTHEWS. What did I say,—two items?

The CHAIRMAN. Two items.

Mr. MATTHEWS. Make that one, then,—one item of \$20,000.

Mr. BROOKS. I thought it was two.

The CHAIRMAN. It is a matter of no consequence.

Mr. MATTHEWS. I like to be accurate. I had one item of \$20,000 in my mind, and I thought there was another smaller one.

Here we have this unbroken line of authorities, Mr. Chairman, and all the authorities there are upon the interpretation of statutes similar to this: we have three cases in England, one case in the United States Court for the District of Missouri, and two decisions in our own State court, and in all of them evidence of earnings was excluded for any purpose, whether as an independent element of value or as evidence of the value of the property involved. I contend that there is but one course

for these Commissioners to pursue, and that is to follow the precedents established in the English cases arising under an act on which this act was founded, the precedents established by our own Court in the *Newburyport* and *Gloucester* cases, and to say that they will not consider and have not considered in their award for any purpose the evidence of the amount of money that the Company was making in its gas and electric light business.

A good deal has been said incidentally of the practical difficulty of valuing a plant like this without taking earnings into account. Why, Mr. Chairman, nobody finds such difficulty except these professional peripatetic experts who travel about the land from case to case, magnifying values —

Mr. BROOKS. Like Stone.

Mr. MATTHEWS. — and who have, in order to magnify values, to bring earnings into account. Other tribunals, other persons, find no difficulty in valuing the property of public service companies, wholly irrespective of their franchises and earnings. For instance, our tax assessors throughout the land every year are obliged to value the property of gas companies and electric light companies in every town and city in the United States where those forms of industry are entrusted to private capital. In no case, or in very few cases — I believe it is a fact that in some cases franchises are taken into account locally; but in New England, in New York, Ohio, Illinois, and practically throughout the length and breadth of this land, all that the local assessors have to do is to value the property of the company, — the land, the buildings, the pipes, the wires, the machinery. Franchise valuations are left to the State to value in Massachusetts and New York, and in many jurisdictions are left out of account altogether. Now these gentlemen, whose business it is to value property, do not find any difficulty in doing it. It is done, practically, in every city in the country.

Then, wherever a jurisdiction exists to regulate the prices charged for gas, electricity, or a similiar commodity, a valuation of the property of the corporation irrespective of its franchises and earnings is a necessary element, and is in fact the basis of

the decision of the tribunal as to the reasonable price to be charged for gas, electricity, or whatever the commodity may be. You can find that point elaborately discussed in the case of the *Capital City Gas-Light Company v. City of Des Moines*, 72 Fed. Rep., a recent United States case. But it needs no amplification of authorities. The fixing of prices and rates to be charged by the public service companies is now one of the chief functions of the State, recognized all over the Union. Gas and electric companies are under the jurisdiction in Massachusetts of a special board; in other States the right of regulation is usually vested in the municipal authorities. Railroads are in Massachusetts and in many other States placed under the charge of a special State commission. In California and most of the Pacific States, where the question of water seems more important than that of light does in the East, the local authorities are usually entrusted with the task of regulating rates. In fact, in California there is a provision to that effect in the present State constitution.

Now, Mr. Chairman, under these powers, which are in constant exercise every day of the year throughout the length and breadth of this country, the property of public service companies is being constantly valued without its franchise or its earning capacity, because the value of the property, as laid down by the United States Supreme Court, is basis for the determination of what shall be a reasonable price, and not the value of the company's property and franchises. There is no better established principle of constitutional law to-day than that the State has the right to regulate the rates charged by the franchise corporations if the result of such regulation is to return to the company a reasonable profit upon the present cash value of its plant, and that in judicial proceedings to test that question the value of the plant is an essential element, while the amount of money that the company is making, or has been making, is to be disregarded; that is, in so far as it is derived from or based on franchises.

Now you have all these cases. You have the assessors; you have these boards with jurisdiction over the rates, ex-

exercising that function all over the land, a part of whose daily duties it is to value the property of these public service companies without their franchises. Here in Massachusetts we have another occasion for special valuations, and that is due to the jurisdiction conferred upon the Board of Gas and Electric Light Commissioners, and also upon the Board of Railroad Commissioners, of approving the issue of stock and bonds under laws passed in 1894 for the most part. Under the interpretation of those laws adopted by the Railroad and Gas Commissioners, it is impossible for any corporation in Massachusetts to get out an issue of stock and bonds in excess of the structural value of its property, and that, as defined by the present Gas Commissioners, means the fair cash value of its tangible assets suitable and used for its business.

It is only experts for the company who cannot value property apart from franchises.

I pass now to a consideration allied to the subject of the Company's earnings ; namely, the opportunities for increasing the Company's business. I shall dismiss that whole subject without further argument, in so far as it means that the Commissioners must take into account in valuing the opportunity to increase the Company's earnings in the future. If it is incompetent to take the present earnings of the Company into account, it is, *a fortiori*, incompetent to take the amount of money that the Company is not earning now but may earn at some future time. The argument on the one question covers the argument on the other.

It is, however, true, that the opportunities for increasing the business are important, Mr. Chairman, in the valuation of this property. Or, rather, the adaptability and suitability of the plant to such increase of the business as the Commissioners think is likely to occur in the next few years is an important question in determining the present value of the plant for the purposes of its use. For instance, we hear a great deal about valuing the plant as it is and where it is, and that is our theory as well as our brother's as to the manner in which a gas or

electric light plant should be valued. But what does that mean with reference to this question of the unused opportunities of the future? It means that the size of the plant, the capacity of the plant, its productivity, are to be so adjusted as to be able to take care of any increase of business in the near future. If not, then the plant is not worth as much as it ought to be. If the plant is so constructed as to require great expenditures in the immediate future in order to enable it to transact the business which the plant will be called upon to transact, then its value is not as great as if it were of the size and capacity and character to care for that business properly. So that, so far as this question of the unused opportunities for future development of the business go, they are material in passing upon the actual value for the purposes of its use of the plant of the Company as it stands to-day, and they are otherwise of no value in the case.

I take up now the question of the value of the plant as a going concern, meaning thereby the additional value which the materials and labor and land which are worked into a manufacturing plant have by reason of their connection together and by reason of the fact that they are, or can be or have been, operated successfully.

Logically, perhaps, the discussion of this question should come after I have adverted to the best modes of valuing the property itself; but for convenience I thought it best to treat it immediately after the question of earnings, because an attempt will doubtless be made in this case, as in others, to work in earnings and earning capacity into the value of the plant, under cover of the expression "going concern."

We admit or contend that a manufacturing plant must be valued as an entity, as a whole; and we concede, of course, that as such it has, if it is demonstrated to be of service and utility for the purposes for which it was built, a greater structural value than the same aggregation of buildings and machinery unconnected or untested by experience. That, we contend, is all that is meant by value as a going concern as distinguished

from or in addition to structural value. It is part of the value of the property for the purposes of its use. It has nothing whatever to do with the earning capacity of the plant or the amount of money that the owner of the plant could make out of it. And it is just as incompetent in law and just as inappropriate in fact to rely on earnings as evidence of the additional value that the plant may have as a going concern as it is to show the earnings as evidence of the value of the materials, land, and labor in the plant. The same rule of exclusion applies to earnings and evidence of earnings, whether you are considering the value of the materials and labor, or the value of any other element which goes to make up the present value of the plant for the purposes of its use, such as its value as a going concern. The only justification for considering this question is the indefiniteness of the expression and the facility with which unscrupulous witnesses and ingenious lawyers will, under cover of such expressions as this, endeavor to work a franchise valuation into what should be nothing but a property valuation. Therefore, I shall ask you to consider with me the origin and the history of this expression and its proper application to a case like this. The first case in which it was ever mentioned was in the opinion by Mr. Justice Brewer in the *Kansas City* water case; and there he allowed what amounted practically to ten per cent. beyond the value of the plant as found by the commissioners for its additional value, as he called it, as a going concern,—that is, as a connected, whole, operating plant.

Now we don't know, and nobody can find out, as the Chairman just said, exactly why that 10 per cent. was allowed by Judge Brewer, because nobody can find out what the commissioners themselves included in the \$2,714,000, which was their award. They did not state. Judge Brewer does not state; and he himself admits that his own opinion was written with great haste, and should not be taken as a careful and deliberate opinion upon the law of valuation. He begins his opinion with that disclaimer. All that we can say about the *Kansas City* case is that Judge Brewer must have thought that the commissioners might have simply figured up the cost of the materials

and labor, and had not allowed anything for the value of the thing when put together, and for the fact that the plant had been in operation for 20 years, and therefore was proved and tested to be a plant capable of operating successfully. That is about all you can say of the *Kansas City* case with reference to this point.

In the *Newburyport* water case the commissioners added 17 per cent. and in the *Gloucester* case 14 per cent. to the value of the plant, or for its additional value as a going concern; but here again, I regret to be obliged to point out, it is impossible to tell from the opinion of the Court or from the report of the commissioners exactly what elements were taken into account by the commissioners before they added in one case 17 per cent. and in the other case 14 per cent. I submit it is a task which cannot be performed. We cannot analyze the report of the commissioners so as to be able to put our finger on every single item that they took into account, and say just what other items were incorporated in the additional allowance for value as a going concern. This statement, of course, is not to be accepted, because it is not intended as any reflection upon the manner in which the reports of those two cases were prepared. It doubtless resulted from the manner in which the case was tried. I happen to know that that was the reason in the *Gloucester* water case. I made myself a suggestion to counsel for the city as to what should be done in this matter, which suggestion was not followed. Counsel in that case did not care that every single item should be explained and specified which went to make up the commissioners' opinion of the value of the property before adding a small percentage for its value as a going concern; and therefore the parties in those cases did not get the benefit of such an award as the parties in this case, or one of them, at least, requests.

We desire, and I may as well repeat at this point what I said in my opening two days ago, we desire and insist upon our lawful right to have the commissioners specify with absolute detail, accuracy, and fidelity every single consideration or item which they take into account before they add anything for the value of

this plant as a going concern ; for only in that way can our rights or the rights of the Holyoke Water Power Company be preserved ; only in that way can the Court before which this case, of course, will ultimately go, determine with accuracy whether the commissioners have included all that they should include in the value of the plant as a going concern, or whether, perchance, they have included some things which ought not to have been included.

Now what can you properly allow for in value as a going concern? There is a good deal of evidence in the case on the subject. Not much attention was paid to it as we went along, but it is collated in the brief on pages 125 to 127. Randolph, for instance, says that he valued the plant as a going concern. Now he gave nothing but the structural valuation, with no addition whatever. He didn't even add anything for engineering and contingencies ; and yet he says he valued the plant as a going concern.

Prichard says he valued the plant—I am speaking entirely now, the Commissioners will understand, of the so-called structural valuations given, and not at all of the valuations based on earnings. Prichard says he valued the plant as a going concern capable of doing the work which it is called upon to do, situated where it is and as it is ; that he valued it as actually doing business ; that he took the value of the plant as it stands for business purposes ; that he took the value of the plant as a going concern, where it is and as it is. And when I asked him how much he allowed for that value, Why, he said, this is the value of the plant as a going concern in distinction to the value of the labor and materials in it. He said that he had offset the general charges of installation—which he figured at about 10 per cent. or 12, I have forgotten which—against the depreciation of the plant.

That is to say, his estimate of present value was reached by taking the cost to reproduce new,—the contract cost of the plant ; and, if he had made his process complete, he would have depreciated it for use and age by ten per cent., and then added ten per cent. for value as a going concern. He reached the



result by a simpler but in substance identical process, by setting off the general charges of installation against depreciation by use and age, and omitting both.

Robb says that his ten per cent. allowed for engineering and contingencies, and the further allowance of \$15,000 for the extraordinary dangers and contingencies involved in the installation of a water development, are what his estimate would be of the cost to bring the electric light plant into the condition of a going concern capable of earning money.

Anderson, in valuing the electric light plant structurally, said he considered it as a going plant; that he allowed nothing for depreciation because of its being a going plant. In other words, he, as well as Prichard, offset those charges in the same way.

So we have four witnesses for the Company — Randolph, Prichard, Robb, and Anderson — practically agreeing in considering the value of these plants as a going concern to be identical with the cost of reproduction plus the general charges of installation less depreciation.

Some of the other witnesses for the Company, two or three of them, have not considered the subject; and, when they are asked about it, they think that value as a going concern must be the same thing as capitalizing the earnings at four or five per cent. I shall not waste any time on that suggestion; but, coming back to what was in the minds of Randolph, Prichard, Robb, and Anderson, we think that they have the idea very closely, very nearly, although not expressed with that elaboration which the Commissioners would require themselves.

The witnesses for the City uniformly use the expression in the same sense. While they do not all estimate the amount at the same figure that Randolph, Prichard, Robb, and Anderson do, yet they consider that the value of the plant as a going concern is included in their estimates of structural value.

Now let us see, Mr. Chairman, if we cannot analyze this additional value of a plant as a going concern a little more accurately and carefully than has been done by any of the witnesses in this case on either side. For the City, we did not care to go into it with the witnesses because it is a matter

which, in the judgment of my associate and myself, the Commissioners are entirely capable of ascertaining themselves upon the evidence in the case. And where that is the case, there is no use in encumbering the evidence with a lot of expert opinions to which they might pay no attention. All the facts are in the case. The reproductive cost, the cost of a new plant, the defects of the plant, the cost of making additions and necessary changes,—everything of that sort, I assume, is in the case and in the minds of the Commissioners; and, when they come to determine what the value of the plant as a going concern is, I do not personally think they need much assistance from expert opinion. If they do rely on it, it is pretty uniform in the case at about 10 to 12 per cent. But I should think, before doing so, the Commissioners would want to analyze the subject a little further themselves, and to see just what the elements are that enter into value as a going concern. That means, Mr. Chairman, everything that enters into the value of a manufacturing plant for the purposes of its use, which is not included in the value of the materials and the labor themselves, considered in their interdependent situation; that is, in their relation to each other.

Now let us see what those elements are, and in doing that the best way is to take a plant historically. How do we build a manufacturing plant?

The CHAIRMAN. Perhaps we had better stop here.  
(Recess.)

### AFTERNOON SESSION.

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Mr. MATTHEWS. I was suggesting, Mr. Chairman, that probably the most accurate way to get at what is really meant by the value of a plant as a going concern is to consider the mode in which a manufacturing plant is actually built.

The first step is the provision of the funds. The money is either raised outright or it is secured by promises, and as fast as the money is put into the plant, there is of course the loss of profit or of interest upon the investment until the plant is completed and ready for operation. So right off, at the outset, in connection with the first stage in the process of erecting a manufacturing plant, you have an item which necessarily enters into the cost or value of the plant as a whole, and yet which is not, and cannot be, incorporated in the value of the land, in the value of buildings, in the value of machinery. You have the loss of interest on the first cost during the period of construction. That I take it to be item number one,—the first of the items which go to make the difference between the value of a connected, operating, manufacturing plant and the value of the plans, materials, and labor that are in it,—interest during construction.

The next step is the purchase of the land. That probably involves nothing but loss of interest, nothing in the way of value as a going concern, nothing to be added to, nothing to be incorporated in the special value of the plant as a manufacturing concern,—except interest on the investment for land during the construction period.

The next thing that is done is to employ an engineer,—at least, that is what ought to be done, and what would be done if a large manufacturing plant were built as a new thing, *de novo*. I might mention that no engineers were employed in the con-

struction of either of these plants,—no gas engineer and no electrical engineer,—but ordinarily that would be considered the proper procedure. Now to what account must you charge the cost of engineering, the fees which you pay your engineer, the amounts you pay him for disbursement among his subordinates for superintendence, and so forth? You can't very well charge it to the land, or to labor or materials. It is neither one nor the other. And it seems proper, according to our view, to incorporate that element, the allowance for engineering, professional services, and advice, in the special value of the plant as a going concern.

You then let the contracts for the construction of the plant. And the contract price which you pay, the sum you pay the contractor, if there is one, or the contractors, if more than one, for the buildings and machinery in site, put up and installed, is what may be called, and is called in our brief, the new or contract cost of the plant exclusive of land; that is, the estimated amount that the owner would have to pay to one or more contractors to secure the buildings and machinery in place. The acceptance of that work, as well as the design and laying out of it, involves professional assistance,—or ought to, at least,—and ought to be conducted under the advice of competent professional assistants.

Then, before letting the work out by contract, it is necessary to determine the size of the works. To do that, some investigation is necessary, and some expense is necessary to secure a proper report as to the proper size and capacity for the plant. That can best be secured by the consideration, possibly of an engineer or of some one employed by him, of the population of the community in question, of the character of its streets, of the probable number of consumers; and it is conceivable that some expense would be entailed for canvassing, to ascertain the probable consumption,—the probable number of consumers. So we think the expense of preliminary canvassing should be included,—not, of course, for the purpose of estimating what the value of the list of consumers is when it is obtained, as bearing upon the business of the company, but simply for the purpose

of laying out the plant properly, at the outset, with reference to capacity.

Then there would be some book-keeping, You can't build a plant costing one hundred or two hundred thousand dollars without some expense for book-keeping; and that, like interest during construction and the engineering expense, is an item of expense which the owner of the plant would necessarily have to incur, and yet it is not land, materials, or labor. It would seem to us proper to include that item as part of value as a going concern, being something that would have to be included in the cost of the work.

There would also be some expense for conveyancing, legal opinions about title, and so forth; and then, finally, some allowance must be made, according to all human experience, Mr. Chairman, in getting at the value of a plant that is in actual operation, for the contingencies that have been met, and are not any longer to be foreseen or overcome. A great many possibilities may arise in the construction of a manufacturing plant which it is impossible to represent in advance in dollars and cents, and which it is impossible, therefore, to estimate accurately. Accidents may occur, it may turn out that your machinery isn't exactly adapted to the work you expect it to do, and yet there may be no fault on the part of the contractor. A mistake may have been made, and that mistake must be rectified before the plant can be brought into the condition of a satisfactorily going concern. All these contingencies and possibilities involve expense, or they involve the possibility of expense, and therefore everybody concedes that something should be allowed for contingencies. And that item, we think, cannot be charged to land or to labor or to materials, but should be properly included with the other elements that go to make up the value of a plant as a going concern.

Now, when you have spent all these sums, when you have got your land, buildings, and machinery and material, and when you have set up your machinery in your buildings, and paid your engineer and your draughtsman and your superintendents, and when you have paid your lawyer's bills for conveyancing, and

when you have paid your book-keeper for keeping the accounts with the contractors, and so forth,—when you have paid out for all the items of that character which can be reasonably foreseen, and when you have allowed something in addition to cover such contingencies as cannot be foreseen, but which everybody knows may arise, and which, if they do arise, will involve expense, then you have brought the plant, we say, into the condition of a going concern, because you have covered all those possible sources of expense which may be necessary before the plant can be demonstrated to have been in successful operation. The difference in value between a connected going plant—having reference to the plant itself and not to the business or earnings of it—and the aggregation of unconnected materials, labor, land, and so forth, is that, in the first case, these expenses have been met, these contingencies have either not occurred at all or, if they have occurred, have been met and overcome, and the result is that you have a plant on which there is no more money to be spent in order to make it a plant capable of successful mechanical operation. The value of the plant as a going concern is the difference between land, buildings, material, and labor in that condition and the same aggregation of land, buildings, and labor in an unconnected condition before they have been put together and tested by experience, before it has been found that they work satisfactorily, or, if it is found that they do not work satisfactorily, before the errors have been corrected.

That is our idea of “value as a going concern,” and it coincides, we think, with the definitions as found in the cases I have cited. And that is all. The moment you go beyond that, and attempt to work any additional value into the plant by reason of its being a going concern, it will inevitably appear, Mr. Chairman, upon analysis, that you are taking into account the earnings of the Company or the amount of business that it is doing in dollars and cents; and that, as I have already argued, the Commissioners have no right to do. They may allow something for the value of the plant as a going concern in excess of the estimated contract cost to procure the land,

materials, and labor ; but we submit that they cannot take into account any other considerations than those which I have enumerated without incorporating into their valuation elements which it is not proper to incorporate, such as the value of the Company's earnings, its franchises, the business skill with which its affairs are managed, and so on.

Our theory of the way to value a manufacturing plant is this : You estimate in the best way you can the value of the materials and labor in the plant. You take the cost to reproduce, if you think that is a valuable test ; you do not rely on it exclusively, but you take it into account if you think it will be of any use. You take into account the cost to procure a plant of equal capacity, efficiency, and economy. You take into account the cost of land suitable for the purpose ; that is, you take the value of the land in question for the purposes of its use. You make a fair depreciation for wear and tear, and for any other considerations that you deem to be proper upon the evidence. If the plant is in any of its parts less valuable than it ought to be, less mechanically valuable, you must make an allowance for that consideration as well as for the wear and tear.

Now when you have the contract cost of the plant and the value of the land for the purposes of its use, and when you have the depreciation for use, age, and other proper considerations, you get a result, obtained by addition and subtraction, which represents the value of the plant before it is an assembled going plant. To the value thus found add a reasonable allowance or percentage — it is perfectly competent, it seems to me, to figure it upon a percentage basis — to cover all these general installation and contingent expenditures which you cannot include in the contract cost. Then you have the extra value of the plant as a going concern.

Now you cannot add anything further. I challenge the ingenuity of counsel to suggest any further addition that can be made beyond the items I have suggested, unless you incorporate to some extent the value of the Company's franchises, good will, or the business skill of its management ; and that, we contend,

you have no right to do. Any further addition, however disguised, is an attempt to incorporate a franchise value, and, if stated to be such by the Commissioners, will be rejected by the Court. Therefore it becomes more important, perhaps, in this branch of the case than any other for the Commissioners to state with the utmost fidelity and accuracy the exact elements which they take into account before they reach the value of the plant as a going concern, and the exact elements they take into account in making that additional allowance.

There is a practical difficulty here suggested by the witnesses on the other side, but none that need trouble the Commissioners, in distinguishing between the enhanced value of a plant due to its being an assembled, going manufacturing unit and the enhanced value that it might have if you took into account the earnings of its owner. The difficulty is to distinguish between the enhanced value of the plant as such, which may be taken into account and is properly termed the additional or special value of the plant as a going concern, and the enhanced value of the plant due to its owner's business and earnings, which may not be taken into account. I do not think the Commissioners will find it a matter of difficulty to draw the line, if they follow the suggestion, of specifying with care the items which they take into account before they add anything for value as a going concern, and also those which they include in this additional value.

I have already referred to the use of the expression "value as a going concern" by the witnesses for the Company, particularly Randolph, Prichard, Robb, and Anderson. And I have referred to the discussion of the expression in the three cases in which judicial attention has been directed to the matter,—the *Kansas City* and the *Newburyport* and the *Gloucester* cases. I have called attention to the fact that it is difficult to extract much light from those three cases upon this question of definition, owing to the inability in either case to know exactly what elements the commissioners took into account before they added anything for value as a going concern. There is one other case, however, which may not have come to the attention



of the Commissioners, in which "value as a going concern" has been considered, and I think this case is the most fruitful of them all. It is

*In re Mayor of New York, etc.*, 57 N. Y. Supp. 657,

a very recent case, involving, as it happens, the valuation of a gas plant. That was a case where property was taken by eminent domain for park purposes in the suburbs of New York, and the taking involved a destruction of a portion of the gas works of the New York Consolidated Gas Company. The portion of the plant taken was a disused plant. The company had been manufacturing coal gas until the introduction of water gas; at the time of this taking it was not making coal gas; and it was only the coal gas plant that was taken. Now how was that plant to be valued? No suggestion was made in the case that earnings should be taken into account; neither side claimed that. There is not a scintilla of evidence in the case that the Court was asked to take into account the earnings of the company.

Mr. BROOKS. Mr. Matthews, will you be kind enough to give me that reference?

Mr. MATTHEWS. *In re Mayor of New York*, 57 N. Y. Supp. 657. But the question came up whether the plant which was disused should be valued as a going gas plant, "as a going concern," to quote the exact words of the Court, or as so much dead material worth simply its dismantlement or removal value. Now the Court laid down this rule: that, if that plant had been definitely and forever abandoned, it was worth nothing but its removal value; but the Court could not find that upon the evidence. On the contrary, it appeared that the company, like other gas companies, was uncertain how long the era of water gas would continue and that this coal gas plant was kept as a reserve plant against emergencies or as against the date — which, by the way, seems to have arrived in New England already — when water gas cannot be economically manufactured in competition with coal gas. The plant had been kept in repair. It was ready to start up. Although it was not in

operation then and was not earning a dollar, it had been in successful operation for years ; and, therefore, all these expenses of installation, superintendence, etc., which I have referred to, had been paid. Why should not, therefore, that plant, although it was not "going" at all, although it was not earning a dollar — why should not that plant be valued as a going concern within the definition of the expression as I have attempted to lay it down? And it was, the Court saying,—

"A careful reading of the testimony satisfies us that the evidence was sufficient to justify the commissioners that this was a *going plant*."

I commend that decision to the attention of the Commission as containing a rather unusual state of circumstances, and yet one which throws more light upon the true meaning to be attached to this expression, "value as a going concern," than either the *Newburyport*, the *Gloucester*, or the *Kansas City* water cases.

So much for "value as a going concern." In passing from that point, however, I wish to call attention to the amount that has been allowed by the commissioners in the cases which have involved the point and to the evidence in this case as to the amount which should be allowed.

In the *Kansas City* case the Circuit Court of Appeals allowed 10 per cent. in round numbers; in the *Newburyport* water case 17 per cent. was allowed; and in the *Gloucester* case, 14 per cent.

The evidence in this case, if the Commissioners please, is considerable in volume, although it is scattered and hard to pick out. It will be found collated on pages 350 and 351 of the brief.

Four of the witnesses for the Company and two of the witnesses for the City stated that, in their opinion, value as a going concern was synonymous with what they understand to be the proper general installation charges or allowances, and those vary for the different witnesses in the case from 8 per cent., which is the figure adopted by Mr. Sherman, the lowest, to 15 per cent., the amount adopted by Mr. Fowler, which is the highest.

The witnesses for the City adopt the following percentages: Warner, 12 per cent.; Blood,  $12\frac{1}{2}$ ; Bell, 10; Main,  $12\frac{1}{2}$  to 13, being different for different parts of the plant; Manning, 10 per cent. The witnesses for the Company suggest the following allowances or percentages: Prichard, 10; Robb, 13; Nettleton, 10; Sherman and Fowler, already stated, 8 and 15; H. A. Foster, 13; Whitham, 10; Newcomb,  $13\frac{1}{2}$ ; Allen,  $12\frac{1}{2}$ ; Anderson, 13; Green, 10. Stedman does not give any exact percentage; but he, like Prichard, Robb, and Anderson, offset value as a going concern against depreciation for use and age, and with substantially the same result. One of the witnesses in the case, and the only one, Mr. Davis, gives a lump sum estimate for value as a going concern on the gas plant, namely, twenty thousand and some odd dollars, which happens to be just about 10 per cent. of his valuation,  $11\frac{1}{2}$  per. cent., I think.

Now that is the evidence in this case, and upon which we ask the Commissioners to find that the additional value of this plant, beyond the value of the land for the purposes of its use and the value of materials and labor in the buildings and machinery for the purposes of their use, is 12 per cent. And in reaching this estimate we are willing to concede that the percentage be struck upon the land as well as on the buildings and machinery. We make that suggestion for two reasons: in the first place, because this allowance, being a lump sum or percentage allowance for all the contingencies and general charges of installation which cannot be represented in contract prices, it seems to us only fair to strike the percentage upon the land as well as upon the buildings and machinery, although I believe, as a matter of fact, none of the witnesses in this case did this, whether acting for the Company or for the City. Our further reason is that we think there is no escape from the conclusion that this percentage should be struck upon the present or depreciated value of the land, buildings, and machinery, and not upon their original or estimated contract cost. That is rather a matter of detail, which is worked out at some length in the brief, and which I will not refer to any further at this point. But, if

the Commissioners adopt our theory of valuation, starting with either reproductive cost, or the cost of a new plant and modern design, working down by depreciation for wear and tear and by reason of the inefficiency or expensiveness of operation to the present value of the land, buildings, and machinery for the purposes of their use, why, then, it is upon that sum which these installation charges and this allowance for contingencies is to be struck, and not upon what it might have cost to build this plant new without engineering assistance, and certainly not upon what it might cost to procure the land at a price based upon its value for other purposes rather than on its value for the gas and electric light business.

Therefore, if we take the liberal allowance of 12 per cent. upon the value of the land and the contract cost less depreciation of the buildings and machinery, if we strike the percentage upon the present value of the land, materials, and labor, for the purposes of their use, you will reach a result not far divergent from what you would get for value as a going concern if you adopted the new or contract cost and call the percentage 10, which is the more common amount allowed or estimated by the witnesses in the case, and the exact sum which was allowed in the *Kansas City* water case.

As I stated this morning, I have discussed this question of value as a going concern somewhat out of order. Logically it comes at the end of your deliberations. I don't think you could reach any satisfactory conclusion, figuring out the value of this plant, if you stopped in the middle of the process, as I have done, and attempted to ascertain what the additional value of the plant as a going concern was before you had taken into account the reproductive cost of the plant and the cost of a new plant, and the depreciation which should be allowed for various causes; but, as I explained this morning, I thought it judicious to consider this question of value as a going concern out of order, for the sake of having the discussion immediately follow the discussion of the admissibility of earnings, because the effort and perhaps the sole effort of the Company on this part of the case will be to induce you to include the earnings of the Company, its

business, its franchises, and its good will, in estimating the value of the plant as a going concern. And, if the City is correct in its interpretation of the statute and in its understanding of the law, such an effort to work by indirection the earnings or business or franchises of the Company into the award as in fixing the value as a going concern is just as incompetent and irrelevant and improper as to do it openly and boldly as a distinct element in the value of the plant itself.

Now, plunging into the middle of the case, and coming down to what is the main difference between the parties, I touch again upon the question of reproductive cost ; and I will consider that in connection with the equally important question of the admissibility of evidence concerning the cost to procure and operate a plant of modern design and of equal capacity and efficiency and economy of operation with the plant under valuation.

What is meant by cost of reproduction? Here, Mr. Chairman, as throughout this case, beginning even with the statutory expression of market value, much depends on definition. We cannot define the statutory words as we please. We must take them as we find them, and ascertain their legal meaning as best we can ; but, in arguing this case or in forming an opinion or award, it is, after all, a question of definition in what sense we use the expression "reproductive cost." I have not only heard it used, but I find, on looking back through the testimony in the case, have used it myself at different stages of the case with different and inconsistent meanings. It means, of course, anyway, the cost of reproducing the plant under valuation, item by item, the cost of procuring another plant identical in all its parts with the plant in question ; the cost, in other words, to procure a new plant which, however, shall be similar or identical in all its parts with the plant under valuation. So much is settled ; any definition of the expression would start off with that proposition. But do we mean by "reproductive cost" or the "cost of reproduction" the new cost, or the cost of such a plant in similar condition,—that is, the new cost less depreciation for wear and tear, or use and age, as it is commonly called ?

Now you can mean one thing or another, according as you define the expression ; and I note that the expression has been used by witnesses in this case in both senses. For the purposes of this argument and for the objects of our brief, I will state that the meaning we attach to the expression "reproductive cost" is the cost of procuring a new and similar plant in similar condition, that is, the new cost less depreciation for wear and tear. And we use the word "contract cost" throughout our brief, and I shall endeavor to use it consistently throughout the oral argument, to indicate the new cost of the plant. The sum that the owner would probably have to pay to a contractor or contractors to procure the buildings and machinery new as of the day of valuation is what we call the "contract cost" or the "new cost." Deduct from that sum the depreciation for use and age, and you get the estimated cost to procure a similar plant in similar physical condition ; and that we define as the "cost of reproduction" or "reproductive cost."

Now, before passing on from this question, I should like to call attention to the fact that the commissioners in the *Gloucester* water case used the expression "cost of duplication," — which I should suppose, offhand, would be the same as cost of reproduction,—in an entirely different sense. I don't mean to say that it is not a perfectly proper sense, but it is important that I should point out that the meaning was different. If you will read the opinion in the *Gloucester* water case and the report of the commissioners, you will see that the commissioners took into account what they call the cost of duplication less depreciation, and that the Court, by Mr. Justice Loring, stated that the commissioners were correct in taking that into account. But what did the commissioners mean by it ? They did not mean cost of reproduction as I have defined it. They meant the cost of a new plant of equal capacity and modern design, as far as there is any question of design about a water works. I will prove that by reading from the report : —

"We have ascertained the cost of duplication, less depreciation, of the different features of the physical plant," and so forth, and so forth. And then, in greater detail, they say that

they considered "the original cost, *also the cost of creating and maintaining a supply of water like in amount and quality for use at the distributing plant, through all other practicable sources.*"

It is evident that the commissioners in the *Gloucester* case, and following them the Court, used the expression "cost of duplication" as embracing not only the cost to create the company's plant in use, but also the cost to create a new plant different in detail, but of equal alleged mechanical or hydraulic value. I don't know whether it is proper to use the word "mechanical" with reference to a water supply system; physical, perhaps, would be a better word.

So, after all, it is a mere question of definition; and all I want the Commissioners to do is to understand that we use the expression "reproductive cost" or "cost of reproduction" in the sense in which I have defined it.

Now what is the law on this subject? I have already had occasion to advert to it on Friday, and the Commissioners will find the subject more fully treated in Part I. of the brief, on pages 136 and following. It was in the earlier and preliminary discussion which arose when I was considering the express injunctions of the statute with reference to the mode of valuation. The law, Mr. Chairman, as we understand it, is that in every valuation case involving the principle of indemnity—that is, where the plaintiff is entitled to recover the full value of the property, irrespective of its market value and of its value for any particular use—then the test of reproductive cost is a proper basis, and may be the sole test of value. This rule of law finds its special application in insurance cases, where the plaintiff in the case of a total loss is not limited to the market value of the buildings destroyed, but is entitled to such a sum as will enable him to recreate the thing itself, to put him back in the same position that he was in. That was first held by the English courts, in the case of *Vance v. Foster*, which is the leading case upon the subject, and has never been overruled. It was followed in Massachusetts in case of *Brinley v. National Ins. Co.*, 11 Met. 195, *Washington Mills v. Ins. Co.*, 135 Mass. 503, and finally, in what I suppose is the leading case in this

country on the subject, *Wall v. Platt*, 169 Mass. 398. *Wall v. Platt*, it should be observed, is not an insurance case; it was a case of negligence,—loss by fire through the negligence of a railroad corporation. But the Court treated it as an insurance case, and laid down the rule that reproductive cost, irrespective of market value, is the test in an ordinary insurance case, and applied that rule to an action of tort against a railroad company for negligence for setting fire to property.

*Wall v. Platt* is not the only one in which this doctrine has been applied to actions of tort, and you will find in *Southern Oil Works v. Sherrod*, 14 Lea, 651, the same rule of damages applied to a similar case. See also a well-considered recent case in New Hampshire, *Seavey v. Dennett*, 69 N. H. 479.

So we have here two classes of cases, insurance and loss by fire through negligence; and, generally, wherever the entire property is lost and the plaintiff is not limited to market value, then the cost of reproducing the thing may be the test of value and the measure of recovery. So, if property is lost in its entirety through breach of contract, market value may be the full measure of recovery; but, if it is not, then the reproductive cost may be.

So in trover, so in a certain class of building cases, and so throughout the law of eminent domain, wherever the measure of recovery is more than market value.

You will note, Mr. Chairman, that in this enumeration of authorities, which you will find in the brief, every case is a case of indemnity, a case in which the plaintiff is entitled to the damage to him, irrespective of the question of what he could sell the property for to others; and the law, as we understand it to be in all such cases, whether cases of eminent domain, insurance, negligence, breach of contract, or trover, is that reproductive cost may be the sole measure of recovery.

Now, taking up the cases in which market value is concerned, and where the Court has to find not the value to the owner, but the fair cash selling value of the property, there, Mr. Chairman, the law is equally well settled that reproductive cost, while a test of value within the discretion of the Court, is never the sole and exclusive test of value.



Take an insurance case, for instance, where the policy limits the plaintiff to the fair cash value of the property,—an unusual form of policy, but one which we sometimes find in force. The law is well settled that in such cases he cannot get reproductive cost as he can under the ordinary insurance policy, but is limited to the market value of the thing destroyed. I have already cited one case upon that point, and I will now cite another, the case of *Clement v. British American Assurance Co.*, 141 Mass. 298.

We have a long series of cases on pages 137 and 138 holding that, no matter what the nature of the proceeding be, wherever the object of inquiry is the market value of the property, reproductive cost is not the sole test of value, and a verdict or award based exclusively upon reproductive cost should be set aside. So much for the law on this point. There is a little more in the brief, but I won't go into it any further here.

Assuming, then, that the law permits the Commissioners in this case to take reproductive cost into account, and prevents them from setting up reproductive cost as the sole test of value, the practical question for you to consider is to what extent you can rely on the test of reproductive cost in a case like this. I think, as I said the other day, that, while in every case reproductive cost may within certain limits be admissible in law, its practical value varies with the circumstances of each case, with the age of the property, with its relative modernness, and particularly with respect to the nature of the property.

If, for instance, we have to value such a plant as that involved in the Newburyport works, which was built in 1881, and valued under an act passed in 1894, which was a small and relatively simple water supply system, not over twelve or thirteen years old, involving no peculiar difficulties, no complicated machinery beyond the ordinary pumps, and presenting none of the peculiar difficulties that might be injected into a water supply case, then I should say that reproductive cost less depreciation would be of great assistance to the Commissioners, and that it would probably be the only test of value invoked by either side. And that was what happened in the *Newburyport* water

case: both sides put in evidence of the cost to reproduce the plant new. One side attempted to show that much should be allowed for depreciation from that cost for various causes, and the other side attempted to show that little, if anything, should be allowed for depreciation. The case was tried and determined upon reproductive cost as the only available test in that case, or, at least, as the most available. In looking back upon that thing, it is pretty difficult to see what other test could have been resorted to in a case like that.

There is one difficulty, of course, in applying the test of reproductive cost to a water supply system, unless it is a very recent one, and that is the impossibility of determining what the water rights would cost many years after they had been condemned. So when, as in a recent case of some magnitude in this State, the water supply system was over half a century in age, and when it was intellectually impossible to give any estimate of the cost to recondemn at the present time water rights which had been condemned a half a century ago,—in that case neither side paid the slightest attention to reproductive cost; both ignored it as wholly inapplicable.

So in the case I suggested the other day. If you were to try to value the Croton Water System, and you came upon a lot of dams which happened to be submerged, reproductive cost would not give you any light whatever upon the present value of the system as a whole; and so on throughout that class of cases. We can suggest any quantity of variations from the ordinary and simple water supply case, as presented by the *Newburyport* case, in which reproductive cost would cease to be as conclusive or as valuable a test as it was in that case, and we can conceive of water supply cases where it would be of no practical aid whatever.

Now let us consider some other classes of property. Let us take ordinary city property, the commonest case, land occupied by old buildings. How many times does it happen that the value of the land as land plus the reproductive cost of the buildings is any guide to the present value of the whole? There are thousands of estates in the city of Boston, with some

of which I happen to be too intimately connected, which the owners would be glad to unload on some unsuspecting purchaser at 50 per cent. of reproductive cost. They would like nothing better than to take the value of the land as land, add the cost of the buildings as they stand, allow almost any percentage for depreciation, and they would then get twice what the property as a whole is worth. Hotel property, theatre property,—I could waste the entire afternoon in multiplying instances. They are common illustrations of the fact that reproductive cost is the last test to rely on in the valuation of ordinary city property.

Now, coming to a manufacturing plant, with which we have to deal in this particular case, and with which the Court had to deal in the *Tremont & Suffolk Mills* case and the *Troy Cotton* case, we have a case where, as I said the other day, pretty nearly everything depends upon the age of the plant. If you were asked to value a cotton mill in Holyoke, Lawrence, or Lowell, a plant built this year, of modern pattern, you would want to know what the plant cost, and you might stop right there. But if you are valuing a cotton mill that was built twenty-five years ago you would never want to know what it cost originally, or what it would cost to duplicate item by item to-day, because you would know that neither of those factors bear the slightest relation to present value. What you would want to know in such a case as that would be what a cotton mill of like capacity could be built for to-day, and that would be every dollar you would pay for the plant in question, and every dollar that any man out of an insane asylum would pay.

Wherever a manufacturing plant is ancient, or wherever its type is obsolete or antiquated, wherever the contention is made that the interrelation of its parts is not such as to lead to economy of operation, wherever the contention is made that it is expensive to operate for these or other reasons,—wherever, in short, we do not have a practically new and modern plant, concerning the capacity, efficiency, and economy of which there is no dispute, then the test of reproductive cost becomes less and less valuable as an assistance in the valuation of the plant, ac-

ording as the divergence from present standards is the greater and you soon reach a period of time, or of divergent processes or types, so great as to render reproductive cost of not the slightest consequence, and a factor which tends to mislead rather than to throw light upon the present value of the property.

It is not necessary for me at this stage of the argument to call the attention of the Commissioners to the fact that all the evidence for the Company tending to show any structural value whatever for this property is based upon the simple, exclusive, and consistent theory of reproductive cost. They take the land at its highest value for any purpose, add every cent it would cost to recreate the existing plant item by item, make a small depreciation due to use and age alone. There they stop, and by the simple process of addition and subtraction they get what they call the structural value of the plant. They get a result which I say bears no relation whatever to the structural value of the plant on the day of valuation. They get a result which I contend is of no human use to this Commission to determine the questions presented to them, because they ignore every other consideration that a purchaser would take into account. They ignore every practical, sensible consideration that enters into the determination of market value. They ignore the efficiency of the plant, its economy of operation, the interrelation of its parts, the relation between capacity and output on the one hand and consumption on the other. They ignore every consideration that a man buying a gas and electric light plant in the city of Holyoke would want to be informed of before he bought. And they have pinned their case, so far as it rests on structural value — and that is all there is in this case, anyway — upon this single, consistent, but utterly untenable theory, that you can take the land at its highest value for any purpose, add to it the cost to renew the buildings item by item, make some allowance for depreciation due to age, and call that the fair market value for the purposes of its use of that gas and electric light plant in January, 1898.

I ask you, gentlemen, to put yourselves in the position of a purchaser,— not a purchaser trying to drive an unconscionable

bargain, but in the position of that gentleman who parades through the law books as the "willing purchaser" with a frequency only equalled by that of the "reasonable man." Put yourself in the position of the willing purchaser. Consider that you want a gas plant and electric light plant, to go into the business of gas and electric lighting in the city of Holyoke. Consider that you have a franchise from the legislature, that you do not need to buy a franchise of the Holyoke Water Power Company, and cannot buy it if you would, because you haven't any lawful right to do so, but that you have got another franchise with which you are satisfied to go to work. I do not ask you to put yourself solely in the position of the City of Holyoke. Put yourself in the position of any purchaser, from a business standpoint, having the necessity to acquire that gas and electric light plant in Holyoke. You would go down to Holyoke, and what would you do? You would look the plant over, of course. You would find out that the gas plant was begun in 1849, and that it consists of a conglomeration of buildings, many of which date back to that period—three or four of them, at least. You would find no modern machinery in it except the water gas plant, which was installed in 1896. You would probably take the water gas plant, having been made by a reputable concern and apparently in good physical condition, at its cost value less depreciation for wear and tear alone during two years, but that is as far as you would go into reproductive cost in valuing that gas works. What difference would it make to you how much it would cost to reproduce those old buildings, with their 17-foot foundations built in 1849? or the old gas mains, the one-inch, 1½ inch, and 2-inch gas mains laid in 1850? The buildings wouldn't be built to-day; the pipes wouldn't be laid to-day.

No, you would ignore the whole business. You might look at it if the Company chose to figure it out for you, but you would never employ an engineer to figure it out for yourself. You would never pay a man to make out a schedule of the reproductive cost of that gas works.

What you would do would be to ask a gas engineer what a works ought to cost in Holyoke, what ought to be the cost to

establish a gas plant with a capacity for a town of 40,000 to 50,000 people and a consumption of sixty to eighty millions a year, allowing a reasonable excess capacity for the demands of the next ten or fifteen years. That is the question you would want to know, and you would start with that. Having got that, you would not stop there, of course, because this plant is an old plant, and it is not worth anything like what the cost of a new plant would be, any more than it is worth the cost to reproduce the existing plant to-day item by item; but you would start with the cost of a new plant, and then make various deductions by reason of these other considerations.

Now the exact processes you would adopt, the exact way you would treat the cost of a new plant, or an estimate of reproductive cost, if you got one, I shall refer to later. All I care at the present time to point out is that you would never stop with reproductive cost. You probably would not get it at all. You would not ask for it. You would go at once to the inquiry as to what a gas plant would cost in Holyoke.

For the electric light plant you would adopt the same process, for still greater and more controlling reasons. The plant is not so old; but there has been a far greater advancement in the art of electric lighting since 1884, to which date this type of plant relates, than there has been in the manufacture of gas since 1849. There has been practically but one great advance in the gas industry in the last half-century, and that is the introduction of water gas; but, as we all know, the art of electric lighting changes from year to year, and the machinery in use one year is wholly different from that in use ten years before.

Now we have in this case a plant that was built in 1890, so far as the buildings go, and the machinery in which dates back to 1884. It is a plant of the type of seventeen years ago, when the art of electric lighting was in its infancy in New England — or anywhere else, for that matter; and you would not care, any more than you would in the case of the gas plant, to know what that plant cost originally or what it would cost to duplicate or to reproduce. You would in that case, as in the other, go point

blank at the outset to a determination of what you ought to pay for a modern electric light station and distribution system of equal capacity and with equal or greater economy of operation as compared with the present plant; and, when you had got that, you would compare it with the present plant and make various deductions from it in order to get at the value of the latter.

Suppose, on the other hand, you started on the other line; suppose that you had an estimate of reproductive cost, an estimate of the contract cost of this plant new, the plant as it stands reproduced item by item,—what would you do with that after you got it? It does not represent the value of the plant to-day in law or in common sense. You would first have to depreciate that plant from the contract cost for the wear and tear that you could see or estimate, based upon its age and the proportion which its elapsed life bears to its probable life as a whole. But you would not stop there. You would ascertain, if you could, the efficiency of the several parts of the plant. You would have to do it. You would not buy anything at cost, or at reproductive cost, unless you knew what it cost to turn out the product. You would not pay \$100,000 for a plant if it turned out to be worth only \$50,000 measured by the cost of operation. So that what you would do immediately, after you had got your estimate of reproductive cost, would be to inspect that plant, part by part, with the assistance of electrical engineers, for the purpose of determining the mechanical utility of the several parts of the plant. There is not any question that you would do that; it will not be disputed that depreciation by reason of mechanical inutility, by reason of expensiveness of operation, must be taken into account in determining the value of property, whether you start from reproductive cost or original cost or any other first figure. Well, I want to suggest this thought, Mr. Chairman: how are you going to get anywhere after you have got your statement or opinion that the plant in some part is inefficient or uneconomical or of poor type—how are you going to get on with your valuation unless you contrast the part in question with the cost to procure machinery of

modern, more suitable, and more economical and efficient type? The point that I am making now is this: that, to the extent that you go beyond depreciation for use and age, you must in your mind, at least, erect a standard of comparison in the shape of a modern plant in whole or in part; otherwise you can make no use of any opinion or evidence to the effect that the plant in question or some part of it is uneconomical to operate, inefficient, or otherwise of bad design. So that you are driven to this alternative: you must either base your award exclusively on reproductive cost less depreciation from wear and tear alone, or, if you go one step further, as of course you must, and consider depreciation from all points, then you cannot get at the amount of that depreciation without contrasting the plant in whole or in its parts with the cost to procure a new plant or parts of a new plant of equal mechanical utility.

I think that I have said enough concerning the logical relevancy of the cost of the new plant in whole or in part. It requires, it seems to me, no amplification of the argument, and I shall be much surprised if there is any attempt to meet the argument that the cost of a new plant in whole or in part is logically valuable in the determination of the present value of a manufacturing property.

It will be said, however, that it is inadmissible in law. Upon this point the first thought that I desire you to bear in mind is that all evidence which is logically useful is legally admissible also, unless it is excluded by some of the well-known common law rules of evidence. Therefore the burden of proof is upon the other side to satisfy you that there is some precise, definite, and ironclad rule of law which prohibits you from taking into account the cost of a new and modern plant in whole or in part in determining the present value of the Company's plant. And we maintain with great confidence that there is no such rule; that no authority can be cited in support of it.

As stated by the Court in

*Winnipiseogee Co. v. Guilford*, 64 N. H. 337, 348,  
a recent New Hampshire case involving the valuation of water



power, all facts and circumstances are admissible for the valuation of property "which might justly affect the judgment of a person desiring to purchase, in determining what price he would offer."

That we conceive to be the fundamental rule of law; although of course we must admit, as I have already done, that there is some limit to be placed upon evidence by the common law rules of exclusion. But we contend that, unless this evidence falls within some well-recognized, definite, and precise rule of exclusion, it is to be admitted.

Here again, as at other portions of this argument, I invite the Commissioners to consider this question of the law of evidence in the light of history and to note particularly in the decisions of our own Court — I don't know that it is necessary to go outside them — the growth of opinion upon this question, — how from the narrowest rules the present law of evidence in valuation cases has come almost to be without limits, — and you will not be able to escape the conclusion that there is at present no rule of exclusion which prohibits the consideration of this class of evidence.

It may not be generally known, but the fact is that until the year 1847 no evidence whatever was admitted in a Massachusetts Court of law of value except the old common law rule of a price obtained in market overt.

The CHAIRMAN. Of what?

Mr. MATTHEWS. Market overt—market price. That does not mean the price of similar property at actual sales, but it means in its literal sense the market price of property. It was not until 1847 that the Supreme Court of this State broke that rule down and allowed expert or opinion evidence of value. That was first held in the case of

*Vandyne v. Burpee*, 13 Metcalf, 288,

the Court then stating, however, that they reached the conclusion that expert or opinion evidence of value should be admitted with great reluctance. And you may not know — at least, I did not until I looked it up — that it was not until the same

year, 1847, that a lawyer in Massachusetts could introduce evidence of actual sales of similar property. That was first held, with great hesitation also, by our Court in the case of

*Wyman v. Lexington, etc., R. R. Co.*, 13 Met. 316.

Having admitted opinion evidence of value, the courts attempted to restrict that line of testimony to value for all purposes, and even as late as the case of

*Moulton v. Newburyport Water Co.*, 137 Mass. 163,

the attempt to show the value of property for some particular use was frowned upon. Of course there is no possible disputation of the proposition that the final value of property is its value for all purposes. The question I am now discussing, however, is whether you can put in evidence of its value for some particular purpose. There is no principle of the law better settled at the present time than that you can, notwithstanding what was said as late as the 137 Mass.,

*Warren v. Spencer Water Co.*, 143 Mass. 155 ;

*Lowell v. County Commissioners*, 146 Mass. 403 ;

*Tremont & Suffolk Mills v. Lowell*, 163 Mass. 283 ;

*Troy Cotton Mfg. Co. v. Fall River*, 167 Mass. 517,

and finally the last case on the subject,

*Cochrane v. Commonwealth*, 175 Mass. 299.

In all those cases evidence of the value of property for some particular use was allowed, although there was no limitation in the statute under which the Court was acting, as there is in this, to value for some particular purpose.

In former days you could not introduce evidence of reproductive cost. It was not until recent times that that was allowed. And I might mention many other innovations, beginning with the year 1847. These innovations have been brought in spite of the opinion of our Court that they are "always somewhat objectionable in character and are to be excluded as far as possible." As late as *Walker v. Boston*, 8 Cush. 279, the Court, referring to opinion evidence, say that this is "somewhat of a departure

from the rule confining witnesses to the statement of facts." But concurrently with those opinions deploring the necessity for innovation upon the ancient common law rule of market overt prices, the Court, in *Dwight v. County Commissioners*, 11 Cush. 201, laid down this general rule, which to our mind is the only sound and permanent rule of law applicable to these cases: "In the very nature of things there can be no absolute standard by which the value of land or real estate can be measured."

And so the rule which was first laid down, although doubtless understood to be the law before that time, in the case of *Wyman v. Lexington R.R.*, 13 Met., that evidence of the value of similar property was inadmissible, has been modified so as to permit the introduction of such evidence in appropriate cases. Of course the general rule is still that you cannot prove the value of one thing by showing the value of another, and that doctrine as a general rule has been enforced so recently as the case of

*Old Colony R.R. v. Robinson*, 176 Mass. 389.

But, as stated in the opinion in that case, there are "cases which are to be treated as exceptions" to this rule. And accordingly we find a long list of cases in which the value of similar property—I am not speaking of actual sales, but of value—is permitted to be shown notwithstanding the general disinclination of the courts to go beyond expert evidence as to the value of the thing which is in question. The first case in Massachusetts to permit the introduction of the value of similar property was that of

*Lowell v. County Commissioners*, 146 Mass. 403.

The same rule was laid down in the *Tremont & Suffolk Mills* case, where a cotton manufacturer was allowed to testify to the value of other land for manufacturing purposes, and his valuation was adopted by the commissioners and the Court. The same thing was done in the *Troy Cotton Manufacturing Co.* case. They got at the value of the land in that case for the purposes of its use, as you must in every case where the value of land and buildings is concerned, by considering what equally

suitable land for the purpose can be had for. So, in determining the value of water power, its value to others than the owner may be shown. That was held in the *Farmington River Water Power* case, 112 Mass. 206; and also the value of similar water power in other places,—so expressly held in

*Lowell v. County Commissioners*, 146 Mass. 403.

I would like to call attention to *Dean v. Nostrand*, a decision of the New York Court of Appeals, which is not reported in full in the 101st N. Y., where it appears, but is found in 4 N. E. Rep. 134. Here the cost and value of a brand of goods, similar to but not identical with the goods in question, was admitted on the ground that the latter were not in the market on the day of valuation, and therefore the value of the goods in question could not be found in the usual way.

Then there is quite a list of authorities which you will find on page 152 of the brief, holding that the rule limiting evidence concerning similar property to actual sales was inapplicable to the particular circumstances of those cases, and in every one of them the value of or the probable cost to procure similar property was held admissible. Those cases are in Wisconsin, in Indiana, in Kansas, and in Maine.

And so we say that, in like manner, the cost of a new plant of equal commercial capacity and of like character must be admissible; for actual sales of similar property cannot be shown,—there have been none,—and there is no way to test the value of the plant in question for the purposes of its use or from the standpoint of efficiency and economy of operation but to consider the cost to build and operate a modern plant of equal capacity.

Coming somewhat closer to the case at bar are the decisions with respect to the valuation of water power. There is the case I have already cited, the recent decision of the New Hampshire Supreme Court in the 64th N. H. We have also two very well considered New Jersey cases, to one of which I invoke the particular attention of this Court—that of the

*Butler Hard Rubber Co. v. Newark*, 61 N. J. L. 32,

cited on page 152 of our brief; and many others that might be cited. None can be referred to holding a contrary view, because it is the well-known practice in water power cases to test the value of water power by the cost to produce an equivalent amount of power in a standard steam plant; and that process of valuing water power involves, of course, an estimate of the cost to procure and operate the standard steam plant. That is such an elementary proposition that no one ever thought of controverting it until this case was tried, when new and hitherto unheard of modes of valuing water power were adopted to meet the exigencies of the Holyoke Water Power Company. The law upon the subject is contained in those four cases, so far as I am aware that there is any.

So in a case of water supply it has been held competent to show the cost of a new system of equal efficiency and hydraulic value with that which is the subject of valuation.

*Gloucester Water Supply Co. v. Gloucester*, 60 N. E. 977.

So in water diversion cases the cost of procuring an equal amount of water elsewhere is admissible. We find that decided in the *New Hampshire water power* case that I have just referred to, and also in a well-considered case in the Illinois Court of Appeals,—

*R.R. & Coal Co. v. Switzer*, 117 Ill. 399.

The Court say, in the *New Hampshire* case, that among the facts and circumstances which are competent evidence in the appraisal of water power is "the cost of equal power derived from other sources (that is, its comparative economy)."

So, in a tax valuation case, evidence of the cost to procure other property of equal value, is admissible under certain circumstances. That has been held by the New York Court of Appeals in the case of

*People v. Kalbfleisch*, 25 N. Y. Ap. D. 432, affirmed 156 N. Y. 678.

There the question was the proper valuation for purposes of taxation to put upon an office building which had been built some years and was somewhat out of date. The auditor or the Court, I have forgotten which,—the lower court, I think,—found that the building had cost \$825,000, but the very architects and contractors who had built it testified that another building equally as valuable, commercially, could be built for \$400,000.

I ought to state in reference to that case that the report is not wholly clear as to just what this other building was. I think it is clear, however, from reading the opinion of the Court, that it was a different building. I wrote to the counsel in the case, and was informed by them, as stated in the footnote in the brief, that that was the fact.

I would like also to refer to a recent case tried in New Hampshire, of the *Amoskeag Mills v. Manchester*, which was a tax valuation case, not in the reports, because it was not appealed, I believe, in which, as I am informed by counsel, both sides put in evidence of the cost of a plant of modern design and equal capacity. There is a recent case in 83 Northwest Reporter, 805, which was an action to recover damages from fire. This case is expressly in point (brief, page 155), because a witness for the plaintiff was permitted, against objection, to testify as to the cost of a building similar to the one burned; and the plaintiff was permitted to ask a question as to the cost of a building of a different kind and shape from the one in question. Both those questions and answers were sustained, the Court saying that the plaintiff in the first place was not bound to confine his inquiries to the exact dimensions of the building under consideration on direct examination of the witness.

Finally, Mr. Chairman, I desire to call the attention of the Commissioners, with as much force as I can, to the rule of valuation adopted by the United States Supreme and Circuit Court in the determination of the actual value of the plant of public service companies to be used as a basis for rates prescribed by State legislatures or their subordinate and delegate

officers. The basis of decision in those cases, as has been held repeatedly, is the present value of the plant ; and, to determine that, they take into account the cost to procure a modern plant of equal capacity and efficiency. One of the best cases upon this point is *Capital City Gas Light Co. v. Des Moines*, 72 Fed. Rep. 829, where the opinion is by Mr. Justice Wilson, of the Southern district of Iowa. He says, referring to the attempt to ascertain the cost of the present gas plant, or rather "of a gas plant which shall be equally efficient and capable of supplying gas to the defendant and its citizens," he could not escape the conclusion that *suitable and proper real estate could be obtained, and the plant erected, mains laid, and so forth, with the same efficiency to meet the demands of the city as that now possessed by the plaintiff*, for the sum of \$400,000. I commend that case particularly to the attention of the Court, as being a gas case, in the first place, and, in the second place, as containing perhaps a very good statement of the applicability of this process to the valuation of the property of public service companies. In the last case in the Federal Reporter, the last United States Circuit Court case which has had to do with the reasonableness of statutory rates, *Matthews v. Commissioners*, 106 Fed. Reporter, beginning on page 7, a similar rule was applied.

I will close my argument for the day with a summary of the reasons why we consider this line of evidence admissible. They are enumerated on page 157 of the brief, and I would like to read them. We have three distinct grounds upon which we assert that this evidence is admissible, as matter of law :—

(1) Where the property to be valued is not commonly sold and has no regular market value ; where it consists of land which is alleged to be worth more for some other purpose ; of buildings which are alleged to be twice as large and costly as reasonably necessary, and of machinery which is alleged to be in great part obsolete in type, inefficient in service, and uneconomical in operation ; where it is conceded that the plant as a whole has no greater value for any other purpose than for the manufacture of the article it was built to produce ; and where for these or any other reason the plant is to be valued for the purposes of its

use,—in all such cases evidence of the cost to procure and operate a plant of present commercial type and of equal capacity and mechanical value is always admissible in law, and makes in fact the most, if not the only, useful evidence of value.

(2) As an independent proposition, such evidence is admissible in all cases arising under the Municipal Lighting Act, because the property is, by the terms of that act, to be taken over at its value for the special purpose of manufacturing and distributing gas or electricity in some particular community.

(3) Such evidence is also admissible in this particular case for the following special reasons and purposes:—

(a) Because it was used by the witnesses for the City in forming their opinions of the value of the Company's property;

(b) To meet the evidence offered by the Company of the efficiency, suitability, and mechanical value of the Company's plant;

(c) To meet the evidence offered by the Company of the reproductive cost or value of the Company's plant, in part, and

(d) To meet the evidence offered by the Company as to the value of its plant as a whole, based on reproductive cost.

I shall, later on in the argument, have occasion to specify and consider the different kinds of use to be made of the cost of a new plant, of the cost to build it, and of the cost to operate it; but I have said all I care to say upon the general question here, with one concluding suggestion. The importance of this line of evidence is very great in this particular case, for the new or contract cost of the gas plant is estimated by the witnesses for the City at \$240,000, the new or contract cost of the electric lighting plant at \$200,000, a total of \$440,000; whereas the actual present value of the plants, based not only upon the estimated cost of reproduction, but also upon the cost to procure and operate plants of modern commercial type, is only \$200,000 for the gas plant and \$140,000 for the electric light plant, a total of \$340,000. So that, irrespective for the moment of the question of water power, there is a difference of a hundred thousand dollars in this case, according to the evidence of the witnesses for the City, hanging upon whether you gentlemen



hold that you are bound to value these plants simply at the cost to reproduce them new, or hold that other evidence, including the cost of a new and modern plant, is competent for the purpose of making a standard of comparison or value.

(Adjourned to Thursday, Dec. 26, 1901, at 1 P.M.)

## EIGHTY-EIGHTH HEARING.

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Boston, Thursday, Dec. 26, 1901.

The Commissioners met at the Court House at 1 P.M.

### Mr. MATTHEWS'S ARGUMENT, *resumed*.

Mr. MATTHEWS. I have considered the general rules of law applicable to the valuation of property of this sort, with the exception of two methods or classes of evidence which require some special mention.

The first class of evidence that I have not yet referred to is that relating to the actual cost of the plant. Actual cost is, of course, admissible in law within such reasonable limits of time as the Court may in its discretion lay down.

So far as the gas plant is concerned, there is no evidence in the case as to what that cost originally, except that there is evidence as to what the water gas plant, which was built in 1866, cost; namely, \$14,000. With that exception, we don't know what the gas works cost the Company.

The evidence concerning the actual cost of the electric light plant is in the case, both the electric station proper, and the steam plant accompanying it, and the water power and machinery. The plant was built in 1888, 1889, 1890, 1891, and the actual figures of cost, as they appear upon the Company's books, were put in evidence in this case; and that first cost for the entire plant, after making a reasonable allowance for the depreciation in prices for iron, copper, and electrical apparatus, that every one knows took place between 1890 and 1898, is almost identical with the estimates of new or reproductive cost made by the witnesses for the City. The actual figures for the cost of the water plant in particular were, I think, within a few hundred dollars of Mr. Main's estimate of the new cost in 1898; there

having been no reduction in price, or at least nothing of any consequence in the material and the labor that went into the construction of the water plant. The figures for the electric light station are somewhat higher than those of our witnesses; and it was to be expected that there would be a difference. The figures for 1890 would be higher than those for 1898.

All that we care to say about the evidence of actual cost in this case is, therefore, that the actual cost of the electric light plant is the strongest possible corroboration of the accuracy of the estimate made by the witnesses for the City of the reproductive cost of the electric light plant in 1898.

Another class of evidence admissible, since 1850 at least, in the valuation of the property is evidence of actual sales of similar property and of the prices at which such similar property was sold in those transactions. Evidence of this class is admissible within the discretion of the Court; that is to say, to the extent and in the event that the presiding justice or the Commissioners think that the property is similar in character.

There has been, of course, no evidence of the prices brought by gas plants and electric light plants, as a whole, divorced from their franchises and the other considerations which enter into a valuation of stock, because such properties are not bought and sold in the market. Neither side has attempted to put in evidence of sales of gas and electric light properties under those conditions; but considerable evidence has been taken showing the actual prices obtained in sales of lands in the manufacturing district in Holyoke, and this evidence, as I shall have occasion to indicate when I discuss the value to be attributed to the land in this case, is most material.

If the Commissioners for any reason, or for any purpose, decide to value the water power in this case, they will find a mass of testimony indicating what might be termed sales of similar property, but which are much closer in point and much stronger evidence than the prices obtained at any sale of similar land could be, because, upon the theory advanced by the Holyoke Water Power Company, these sales or leases were not of similar property, but of the same property. That is to say, they were

sales or leases of water power upon the same terms as (according to the contention of the Company) those offered to the City in this case. I shall have occasion to dwell upon this point more at length when I come to the discussion of the many questions relating to water power presented by this case. At the present time I pass it, with this suggestion merely, that in so far as this case involves the valuation of this so-called non-permanent water power,—that is, of water power delivered to the lessee or purchaser upon the so-called non-permanent basis or terms,—and assuming that the Company is correct in its contention that this class of power is offered to us exactly upon the same terms that it was hired by the eleven prior lessees of non-permanent power, then the price which those eleven lessees paid is not only evidence of the sale of similar property within the rule that I have called your attention to, but is stronger, closer, and has a more intimate relation to the issues in this case than any mere sale of similar property would be; because they were sales of the same thing, that is, of water power or water sold, leased, or delivered upon what the Company alleges to be exactly similar conditions and terms.

Of course the City does not admit that contention. The City claims that the Company has no lawful right to lease any more water power upon the terms offered to the prior lessees. But if the Company is correct in its contention that it offers to the City the same sort of power that was leased to the Dickinson and Crocker Manufacturing Companies, to the Mackintosh people, and the other seven or eight lessees of non-permanent power, then we have in the evidence relating to the prices paid by those lessees a guide to the current, going market selling price of exactly the same thing.

Wherever we have evidence of the price brought in the market, that, according to the law, is the highest class of evidence, and it cannot be magnified or controverted by calculations, computations, however ingeniously constructed, or by any opinions, however expert may be the witnesses who express them. This rule of law, it seems to me, is important for the Commissioners to bear in mind in its application to these two items in this case,—the

value of the land and the value of the water power upon the non-permanent basis. Where you have evidence of actual sales of similar property, property which the Court knows to be similar, and still more so in the case of property which is the same, then it is incompetent for either party to control this evidence of value by any expert opinion, or by any calculations, computations, or other forms of evidence directed to show, not what the actual selling market price is, but what it ought to be.

This principle of the law of valuation the Commissioners will find clearly stated in the case of the *National Bank of Commerce v. New Bedford*, which is found on page 159 of the brief. I would call attention to both cases, one found in the 155th Mass. and one in the 175th (155 Mass. 313; 175 Mass. 257). The purport of those two decisions is that where you have sufficient evidence of value derived from actual sales of similar property it is incompetent for either party to increase or diminish that value by expert testimony.

Another mode of valuation which is lawfully permissible, which has not yet been adverted to, I will mention in passing merely, because there is very little evidence in this case based upon it, although there is some. That is valuation by opinion merely, or by inspection and expert opinion; that is, a valuation based upon judgment, experience, and inspection. Mr. Davis values the gas plant in that manner, Mr. Randolph values the gas plant in that manner,—one witness for each side upon the gas plant,—and Mr. Blood and Mr. Stone value the greater portion of the electric light plant in that manner. Mr. Davis fortifies his valuation by other considerations and other modes of valuation, as does also Mr. Blood; but Mr. Randolph for the Company makes no attempt to verify, check, or fortify his valuation based upon inspection and opinion merely, but leaves it there, resting upon those two considerations alone. There are other instances on water power which I will pass for the present.

And now, Mr. Chairman, permit me to summarize the law of valuation applicable to this case.

In the first place, you must take into account only the market

or selling value of this property. You must consider it at its value as a whole as a manufacturing unit. You must take it at its value for the purpose of manufacturing and distributing gas in the one case, and for the purpose of manufacturing and distributing electricity in the other. In reaching this value of the property as a whole for the purposes of its use, you may consider the cost to reproduce the property in site, that is, the cost to procure a new plant identical in all its parts with the Company's plant; but you may not consider that evidence as conclusive. You may take into account the actual cost of the property, if it is in evidence, for what it may be worth. You may consider sales of similar property, if any such have been put in evidence. You may rely to such extent as seems to you judicious upon opinion evidence, and on the judgment and experience of the witnesses who have appeared upon the stand. You must also take into account the mechanical utility of the plant as contrasted with such a plant as would be built at the present time, in accordance with present commercial standards. You may use this modern plant as a standard of comparison in ascertaining the present cash value of the Company's plant. And, finally, having done the best you can with the physical property, with the land and buildings and materials and labor which enter into the plant, you may then, if you think that the evidence justifies it, add some reasonable allowance or percentage for the additional or special value that the plant as a connected whole has over its component parts considered separately. In whatever process you adopt, and whether you adopt one or more, there is one rule that should never be absent from your minds: each part of the plant must be valued in relation to all the rest. It is absolutely incompetent in law to value each part separately and then get the value of the whole by adding the valuations of the separate parts together. You may either strike at once at the value of the whole, and then divide it up the best way you can, or not divide it at all; or you may proceed piecemeal, taking each part at its value in connection with the rest before you attempt to get any valuation for the whole by addition.

Now, Mr. Chairman, what is the application to the evidence in this case of these general rules of law? Incidentally I have mentioned one or two special applications as I went along; but, for the most part, I have contented myself so far with discussing and presenting to you as well as I could — my only effort being to make my explanation clear and plain — the general principles of law which are to control the valuation of manufacturing property.

In the application of these general principles I shall rely largely upon the care which has been bestowed upon that branch of the case by my associate, and upon his presentation of the evidence in detail. But I desire, myself, to call the attention of the Commissioners in a general way to the manner in which it has been sought by the witnesses for the City in this case to make use of these general principles of valuation, taking up in the first place the question of the land.

Practically the only principles of law applicable to the value of land in this case are two: first, that it must be taken at its value for the purposes of its use, and not at any higher value that it may have for some other purpose, unless that higher value is so great as to justify the dismantlement of the plant. Otherwise you reach either an excess value of the whole, which is obnoxious to the rule laid down in the *Tremont & Suffolk Mills* case, or you reach a dismantlement value, which would be unfair to the Company.

The other principle applicable to the valuation of land relates to the propriety of relying upon the actual sales of similar property which appear in evidence in the case.

There are three lots of land in question in this case: the site of the gas works, the site of the gas holder at Bridge Street (holder No. 3, as it has been termed), and the site of the electric light plant.

Two questions arise in reference to all of these sites. One of them, however, has hardly anything more than a theoretic interest, for reasons that I will point out in a moment. The two aspects of this question are: first, the value of the land as such, that is, as if it were divorced from the buildings on it — its

value for its highest purpose not connected with the buildings; and, secondly, its value in connection with the buildings and machinery on it — that is, for the purpose of running a gas works or an electric light plant in Holyoke.

The first question is one of theoretic interest only, I apprehend. It could have no practical application to this case unless you reached the conclusion that the value of the land for any purpose was so great as to justify the dismantlement of the plant. No one seriously contends that in this case, and therefore all the evidence that you have listened to from the Company as to the value of the land for any purpose divorced from the buildings and machinery attached to it is incompetent evidence, and should be disregarded. The Company's witnesses, for instance, testify that the value of the land at the Bridge Street holder divorced from the buildings on it — that is the exact expression they use — is from 60 to 75 cents a foot. The experts for the City value this same land upon the same theory, that is, as if it were unconnected with the buildings and machinery attached to the freehold, at from 25 to 30 cents a foot. In like manner the witnesses for the Company value the site of the Bridge Street holder as if it were free from buildings at 40 to 45 cents a foot, while the witnesses for the City testify to a value under the same conditions of only 30 cents a foot. So the site of the electric light plant is put by the witnesses for the City at about 50 cents a foot if there were no buildings on it and irrespective of the question of water power. There was no evidence for the Company as to the value of the electric light site apart from the buildings on the land and the water power alleged to be appurtenant to it.

We say that all this evidence on both sides must be disregarded by the Commissioners, unless, of course, they should find that the land, at the price that they think would be its value if it had not been built upon, is so great as to justify the dismantlement of the plant, and thus enable the holder to reap the higher value of the land as such. We apprehend that no such conclusion can be arrived at in this case; and therefore all the values introduced by either side of the land considered apart



from the buildings on it is incompetent, and should be disregarded.

That leaves as the only evidence in this case of the value of land within the rule laid down by the *Tremont & Suffolk Mills* case and the *Troy Cotton Manufacturing Company* case the evidence of our experts that the land is worth for the purposes of manufacturing gas and electricity, at the outside, 15 cents per foot, and it is that figure which we ask the Commissioners to find as the fair market value of the land at all these sites, taken in connection with the buildings and machinery upon it, for the purposes of its use; that is, for the purpose of manufacturing gas and electricity respectively in Holyoke.

This conclusion the Commissioners can rest not alone upon the expert and opinion evidence in the case, but, as I intimated a moment ago, it has been fortified by the evidence scattered through the 15 volumes in the case relating to actual sales of similar property. There are four or five such actual sales in the case. They will be found enumerated on page 295 of the brief. They run from 12 cents to 75 cents a foot, the higher priced lots being small corner lots in the manufacturing district, such as that occupied by the American Pad and Paper Company, a small lot of 10,000 feet on the corner of two streets. All the large blocks of land which have been put in evidence in this case as having been sold unconnected with water power and situated in the manufacturing district — that is, between the first level canal and the river — have brought either 12 or 13 cents a foot. We have the "City lot" itself, situated right at the edge of the manufacturing district on the one side, occupying a situation comparable with that of the gas works site, which is on the edge of the manufacturing district, only on the other edge of it. That was sold recently — in 1894, I think — at 12 cents per foot, and the area of that lot is almost exactly the same as the area of the gas works site between the canal and the river. I said 12 cents; I should have said 13.7 cents.

Then we have the sale of the LaFrance property, which was a large lot of land, sold in 1896, I believe, at 12 cents a foot, very close to the Bridge Street holder.

Finally we have the second sale to the Riverside Paper in 1897, the evidence concerning which is that 100,000 square feet of land changed hands for what Mr. Appleton says was \$30,000; but the Company also got two permanent day mill powers besides. If you can apportion that \$30,000 between the 100,000 feet of land and the two permanent day mill powers, you will get not far from 15 cents a foot for the land as land.

There you have three cases of actual sales of property entirely suitable for either a gas plant or an electric light plant, all within or on the immediate edge of the manufacturing district in Holyoke, and running from 12 to 13.7 or 15 cents a foot. We claim, therefore, that the opinion of our real estate men as to the value of any of the Company's land for the purposes of its use—that is, for manufacture of gas or electricity in Holyoke—is amply fortified by the evidence of actual sales of equally suitable property; and that the highest price the Commissioners can find for the land involved in this case, taken in connection with the buildings and machinery attached to it, and at its value for the purposes of its use, is 15 cents a foot.

Having disposed of the land, the next step that we suggest to the Commissioners in attempting to value either plant in this case is to consider what a modern plant would cost; that is, a plant of current, present commercial design. It is easy enough, of course, to characterize or ridicule such a plant as an "ideal" plant. It would be easy also, Mr. Chairman, to design an "ideal" plant; and we have one in this case designed by our friend Mr. Tower,—a plant which, he admitted, was such as he had never seen and never expected to see built for paper manufacturing purposes; a building 90 to 100 feet in height, of fire-proof construction, occupying only 25,000 feet of land, capable of turning out a product requiring the use of 16 mill power. That is an ideal plant in the sense that while nothing was wasted by Mr. Tower in the design or construction of the building, and while it would not be fair to characterize it as ideal in that sense, it was ideal in the sense of not being like anything that ever had been built, and, as Mr. Tower frankly admitted, he did not know when anything of the sort ever would be built.

The plants that we ask you to consider as a standard of comparison, both for the gas and the electric light works, are not "ideal" plants, even in that modified sense. They are simply plants such as would be built at the present time—I am speaking, of course, of January, 1898, whenever I use the words "present time"—according to ordinary or good engineering practice. We do not ask you to take into account anything that was not in current, commercial use at the time of valuation; or, at least, we do not ask you to take into account anything that would not have been built at that time, January, 1898, by persons who should be entrusted with the task of constructing an entirely new gas works or electric light plant.

We desire also to call the attention of the Commission to the fact that we have not endeavored to show that there is any standard type of plant, rigid or exclusive in its features, from which current, commercial practice does not vary. It has been intimated in one case—a valuation case which has not yet reached the full court—that evidence of the cost or value of a cotton mill, dependent entirely upon the cost to procure a new cotton mill of standard type, failed, because of the failure to prove that there was a standard type. We do not ask the Commissioners in this case to find that there is any fixed standard type of gas works or electric light plant. We simply ask the Commissioners to devote their attention, for the purpose of mental comparison with the Company's plant, to such a plant as would in fact have been built in January, 1898, for gas or electric light purposes in Holyoke, whether or not it can fairly be said that such a plant constitutes a type, a standard, from which there should be, according to good engineering, no substantial deviation. We doubt very much whether any such standard exists, and for that reason we have not attempted to set it up. In the matter of gas plants, for instance, many processes are good; there are half a dozen processes for the manufacture of water gas, all in current, commercial use in Massachusetts. It cannot be said that any one of those processes constitutes a type or standard from which there should be no departure. So as to the buildings, mains, and so forth. The

buildings might be assembled and put together, or even constructed according to a great many different designs. We have not attempted to pin or risk our case upon the existence of some special, invariable, and standard type of gas plant. We do not think any such existed in January, 1898.

We know, however, that gas plants were being built in January, 1898, that gas works were being constructed and renewed at that time, and we have simply sought to show what one or more types then in use would cost to build and operate.

The electric light plant has been handled by our witnesses in the same manner. We avoid the difficulty, if it be one — I don't say that it is, but it has been intimated to be a difficulty — of setting up some invariable standard plant, from which there can be, according to good engineering, no deviation. On the contrary, we recognize the fact that there were in January, 1898, upon the market, obtainable by anybody seeking to install an electric light plant, several types, suitable to the needs of Holyoke. We have suggested what a plant of one type would cost and what a plant of another type would cost, and we put in the cost to procure and operate several distinct types of apparatus or plant, all of which we claim were on the market in 1898, any one of which would have been installed, according to good engineering practice, if a new plant were to be created at that date.

So much for the general description and kind of plant that we have sought to ask you gentlemen to erect in your minds; it is true as a standard of value, though not as an absolute and fixed standard type. We ask you to treat the cost of such a plant as would according to current, commercial practice and good engineering design have been built in January, 1898, and the mechanical utility of such a plant,— that is, its cost of operation,— with the buildings and machinery of the present plant, and with the cost to operate that plant.

The question will then present itself to your minds, How shall we use the modern plant in order to get at the value of the existing plant? All that I have said so far upon the subject seems as simple as the alphabet. It has been difficult to argue it,

as it is always difficult to argue that 2 and 2 make 4. No man in his senses, as I said the other day, would reject the assistance to be had in valuing a manufacturing plant which is not new and which is not built according to present commercial designs from an inspection and comparison of the cost to build and operate a plant that is new and is built according to present modern methods. But when we come to consider how we are to use this modern plant for the purpose of valuing the present plant, then I think we are confronted with a difficulty, not of principle, but of fact. I think we are confronted with a difficulty which will require the best efforts of this Commission, a difficulty which will require a considerable study on their part of the evidence in this case before they can satisfy themselves that they have made the best use of the cost of building and operating a modern plant for the purpose of valuing the present plant.

I will simply enumerate, as I pass, the different processes that have been adopted by our witnesses for arriving at the value of the existing plant by a comparison with the cost to procure and operate a modern plant.

The witnesses for the City considered in the first place that the cost of a modern plant indicated a maximum or limiting value for the present plant. That goes without saying, and requires no argument or explanation. But it indicates more. The present plant may not be as efficient in operation, and for that reason is not worth as much as a modern plant would cost; and the present plant is old and has a smaller lease of future life, and for that reason is not worth as much as a new plant. The great question in the case is how to estimate the proper value of those differences; how to make judicious, accurate, and fair allowances or deductions from the cost to procure a new plant, in order to reach the value of the Company's plant. As I say, all the witnesses for the Company treat the latter as indicating a limiting or maximum value.

Some of them use the cost of a modern plant as a sort of check or verification of their opinion of value derived from other sources. Davis, for instance, gets at the value of the gas works

in the first instance by inspection and opinion. He is the largest manufacturer of gas appliances in New England, one of the largest in the country, and he went up to Holyoke and inspected that plant and put a value upon its several parts,—a value in use, upon each part, taking into account its interrelation with the other parts. The aggregate valuation thus obtained represented in his mind a tentative, preliminary, or balancing figure for his final judgment; and he checked or verified that figure by a consideration of what he could get a new plant for of equal capacity, but having modern machinery of greater efficiency and economy of operation. And when he had got his new plant, and figured out the cost of it, he estimated how much it would cost to bring the present plant up to the same standard of efficiency and economy of operation,—how much money would have to be spent on the present plant,—and then he tried to make a mental allowance for the difference in value between the two plants. In that way he reached a figure that was so close to his opinion based upon inspection and judgment that he concluded that he was right in the first instance.

That is the use which Mr. Davis makes of a modern plant. He does not use it as the sole standard of value, although it might be used as such. He uses it as a check upon a valuation of the Company's plant based in the first instance upon inspection and opinion.

Mr. Stedman, the other witness for the City upon the value of the gas plant as a whole, also uses the cost of a new plant as a check upon his opinion of the value of the plant derived in the first instance by other methods. He based his valuation of the plant, not as Mr. Davis did, upon inspection, but upon reproductive cost. He finds the cost to reproduce the Company's plant. He makes what he considers a proper allowance for depreciation from all causes, and he reaches a certain figure, the accuracy of which he tests by a consideration of what it would cost to build and operate a modern plant. He too, like Mr. Davis, uses the modern plant as a check upon the accuracy of a different mode of valuation.

Other witnesses use the cost of a new plant to reach a direct

valuation of the plant which is under valuation, and it is evident that it can be used in that manner. Dr. Bell does that, for instance, for the electric light plant as a whole. Main and Manning use that process with reference to the Company's land and water power. So does Mr. Tower, one of the witnesses for the Company; and Main, I think, gets at the value of the steam and water plant in the same manner. Warner's process as applied to the electric light plant is substantially the same. You take the cost of a modern plant, you consider the cost to operate the existing plant, and you contrast that with the cost to operate the modern plant. Those three factors are what you most need. You do not need the reproductive cost of the existing plant at all.

That, in substance, is the process adopted by Warner and Bell for the valuation of the electric light plant as a whole, and by Main, Manning, and Tower for the valuation of the Company's land and water power. It is, of course, as the Commissioners well know, the ordinary process for the valuation of water power. This is the first case in which any other theory of getting at the value of water power was developed than the determination of it by means of the cost to create an equivalent amount of power in a standard steam plant. That process, which is resorted to by one of the witnesses for the Company in this case, Mr. Tower, and by every witness in every water power case that ever was tried until this one, involves, of course, the cost of a modern and different plant. The question is, What is the value of the water power which is produced, we will say, by a certain water plant at a given mill? You get at it entirely without regard to the cost to reproduce the water plant. You get at it by determining what it would cost to produce that power in a modern steam plant. You figure out what it would cost to operate that modern steam plant and what it would cost to operate the existing plant, and you capitalize, upon some fair basis, the difference in the operating expenses. The result represents what a man could afford to receive, and lose his water power—lose his dam, his water development, and his power. That is, it represents the present or capitalized value of the annual difference to him in the cost of producing a given amount of power.

That process, Mr. Chairman, involves an estimate of the cost to procure a totally different plant, to wit, a steam plant, built upon modern commercial lines; and it does not involve any estimate of the cost to reproduce the plant which is under valuation. That is wholly unnecessary. As I said the other day, it may be useful, but it is not necessary. And actually, in this case, we find all the witnesses on water power, when they come down to the valuation of water power, whether acting for the Company or the City, get at the value of the water power and privilege in this case, and the land that goes with it, exactly in this manner; and Mr. Bell and Mr. Warner do the same thing for the electric light plant as a whole. The process is, of course, as applicable to a manufacturing plant as a whole as it is to the valuation of water power or to the valuation of a dam.

I will not take up the time of the Commission this afternoon by discussing in detail the exact methods which are used by Mr. Warner and Dr. Bell in applying this common and well-known process in water power cases to the value of the electric light plant as a whole. I will leave that for my associate. But I desire, at this point, to call your attention to one thing that these witnesses do not do, to one process which none of the witnesses for the City in this case have adopted. They do not treat the capitalized result of the difference in operating cost as necessarily the sum to deduct from the cost of the modern plant without further consideration. In other words, they do not stand upon capitalization alone. I desire particularly to call the attention of the Court to this fact, because it has been intimated in another case involving the valuation of manufacturing property recently tried before commissioners in this State, that a value for a manufacturing plant reached by taking the cost of a new plant and deducting from it the capitalized difference in the operating expense was not an accurate mode of valuation. We agree we do not believe you can do anything of the sort, and we have not tried to do it. We have gone through the capitalization process upon what we conceive, at least, to be a well-considered theory,—a theory, certainly, considered with the greatest care, a theory fortified by the best experts that we could procure



in the whole of New England. There is no difficulty in getting all the experts that anybody wants on water power or electric lighting. We had the choice of the best, and we think we got the best. And those gentlemen, Mr. Stone and Mr. Blood and Dr. Bell, Mr. Warner, Mr. Mann, and Mr. Manning, devoted themselves to a consideration of the proper way in which to reach a valuation of this electric light plant, in part or in whole, by means of the cost to procure and operate a modern steam-driven electric plant. We submit their calculations and results with the statement that they were prepared by men of the highest repute, that they were prepared with the greatest care, and that they do not involve what may seem to you to be the fallacy which has characterized some other efforts in the same direction, the mere capitalization of the difference in operating cost.

Such a process, Mr. Chairman, is defective, or may be defective, for two reasons, one of which works against the Company and one of which works against the City. If you take the cost of a new plant, and simply deduct from it the capitalized value of the difference in operating cost, you get a figure which can only properly be used, to quote the language of Mr. Warner, "as a tentative or balancing figure,"—a sum which can only be used, I should say, as a preliminary figure, subject to correction, for one or both of two considerations.

In the first place, the Company's plant may show a very high and excessive operating cost, because of some defect capable of being remedied at a cost much less than the capitalized difference in the operating expenses of the plants as they stand. For instance, the estimated cost of a new plant may be \$200,000; and the difference in the operating expense might be \$5,000 a year. If you capitalize that at 5 per cent., you will get \$100,000. Now, deducting that from the \$200,000, you get,—not, we claim, a final result, a correct valuation of the present plant, but a tentative, balancing, or preliminary figure for it. The next question which you must raise in your own minds is this: Here is a \$100,000 that we are asked to deduct from the cost of a new plant, by reason of the excessive cost of operating the Company's plant; but may it not be that, by a smaller expenditure

than \$100,000, the Company's plant could be brought into a state of operation so effective as to be comparable with that of the new and modern plant? Therefore, we must not stop with the capitalized difference of operating this as compared with the new and modern plant; but we must consider what changes could be made in the present plant to bring its efficiency and economy of operation to such a point as would be fairly comparable with that of a modern plant. Our witnesses do this, and estimate the cost of those changes; and if the cost of making them is less than the capitalized difference in operating expense, it is evident that the cost of those changes is the sum to be deducted from the cost of the modern plant, and not the capitalized difference in operating expense.

To continue the illustration in capitalization: If the Company's plant could, at an expenditure of \$50,000, be put in such shape as to operate as efficiently and economically as a modern plant, clearly it is \$50,000 and not \$100,000 that should be deducted, and the value of the Company's plant is left at \$150,000 instead of \$100,000.

This is a consideration which must be borne in mind, in the interest of the Company, before you can apply the test of capitalizing the difference in operating expense,—that is, before you can accept the result of that test as indicating conclusively the present value of the Company's plant.

There is another consideration which must be borne in mind in the interest of the City. After you have got the difference of operating expense, capitalized it, deducted it from the cost of a new plant, you have still got a figure which represents simply the value of the present plant, from the standpoint of economy of operation. But you have an old plant. It will operate, it is true, at the present time, just as well *ex hypothesi*, as the modern plant; that is, after you have made this deduction. But it isn't going to last so long. It is older, and therefore you must make some allowance or deduction on account of the greater age of the plant under valuation. That is to say, in applying the test of a new and modern plant, after you have deducted the capitalized difference in operating expense,

you must make some further reasonable deduction on account of the present Company's plant being old, if it is in fact an old one.

That in the main, Mr. Chairman, is the process which we ask you to adopt, first, foremost, and chiefly; and these are the safeguards which you should mentally erect about the process as you use it, to the end that you may not stand upon an apparently accurate and mathematical result when in reality you are going on a balancing or preliminary figure, which may be shifted up or down, according as your further researches into the condition of the plant may lead you.

Having done what a prospective purchaser would do first, that is, found out what a gas or electric light plant ought to cost in Holyoke, and having found out what the difference in the operating cost of the two plants would be, and having considered how much it would cost in the way of additions and changes to bring the present plant up to the same standard of efficiency that you would have in the new plant,—then, if the Commissioners think they can derive any satisfaction whatever from a consideration of the reproductive cost of the Company's plant, we admit that it is competent as a matter of law for the Commissioners to consider evidence along that line. All the witnesses for the City, except one, as well as all the witnesses for the Company, have gone into the question of reproductive cost with considerable care.

The Commissioners will find in the fifth section of part 2 of our brief, page 312, a discussion of reproductive cost. As I said the other day, you can define it as you choose; but, however you define it, the first step in getting at reproductive cost is to estimate the contract cost of the plant new. That is a step which is taken by all the witnesses in the case except Randolph and Davis, who do not attempt to give any estimate of reproductive cost at all. But every engineer who figures out reproductive cost must begin with the contract cost of the plant new. We begin with that; we begin with a tabulated statement of the contract cost of each plant, divided for convenience into the different

subdivisions of each plant. Those will be found in the tables on pages 314-318.

We then consider the differences between the estimates for the City and the estimates for the Company. We find that there is not that great difference which might be expected. For instance, the lowest witness for the Company on the gas plant is only 13 per cent. higher than Stedman for the City, and the average of the Company's witnesses is only 16 per cent. in excess of Mr. Stedman's estimate of the contract cost to reproduce the present gas plant new in January, 1898.

The differences of the witnesses on the electric light plant are almost exactly the same, as it turns out. The difference between the lowest for the Company and the highest for the City is only 13 per cent., and the average of the Company's witnesses is only 19 per cent. above Mr. Warner's estimate, which is the highest for the City.

We ask the Commissioners to verify these tabulated results, and before going any further we ask the Commissioners not to do one thing: we ask them not to average. We are well aware, of course, that in valuation cases commissioners must to a certain extent do what juries or arbitrators do,— they must average; but they should only do so, Mr. Chairman, as a last resort. It would be a miscarriage of justice if a case tried with the great elaboration with which this case has been tried should result in an award reached by the simple process of averaging opinions, even upon subsidiary points like this, namely, the estimated contract cost of the Company's plant new. Such a process is wrong, Mr. Chairman, in the first place, because it puts a premium upon expense. It is evident — as I shall show you in a moment — that the difference between the witnesses on the one side and the witnesses on the other side can all be reduced to three or four items, depending largely upon the instructions of counsel. It is plain that under those circumstances the estimates of all the witnesses for the one side will be very close to each other, and the estimates of the witnesses on the other side will be very close to each other also; and, if the tribunal is to average them all, they are simply putting a premium upon the number of witnesses.

In the next place, to simply average the estimates given by witnesses, who at this time do not know half as much as the Commissioners do about the facts of this case, is a sort of resignation, as it seems to me, of the proper and judicial functions of the Commission, and it should not be tolerated unless as a last resort. We are prepared, of course, to concede that after you have eliminated all the differences which you can ascertain are due to some special cause, there may be differences due simply to opinion, differences which you cannot analyze, and in that case, perhaps, there is nothing better to be done than to average them ; but it should be the last step in your process rather than the first.

I shall leave it to my brother to point out to you that, exhausting first the opportunities of analysis and elimination, as we conceive it is your duty to do, you will find before you get through that there is almost nothing left to average, because, as he will satisfy you without difficulty, the differences between the estimates for the City and the estimates for the Company upon the question of the contract cost new of the Company's plant in January, 1898, depend almost exclusively upon the fact that the witnesses for the Company have in three particulars and for three reasons, which we can point out to the Commissioners, assumed quantities larger than our witnesses have taken, and because they have in three or four instances taken prices larger than the prices which we think they should have taken. Mr. Green will satisfy you in the first place that all the difference between their estimates and ours is due to these three or four differences in quantities and these three or four differences in prices. And then he will ask you, before you attempt to average anything, to determine which side is right with respect to these differences in quantities and prices. There are not many of them. They are few in number, and the result is not very great. It is only, in round numbers, 15 per cent. But we want to get rid of that 15 per cent. if we can. We ask you to consider our brief, and the oral argument which will be presented to you in amplification of it, and you will be satisfied that the difference of results is due to the fact that the Company's witnesses have

taken larger quantities in three or four instances than our witnesses have, and larger prices, and we ask you with great confidence to find on the facts in this case that the Company's witnesses were in error both with respect to quantities and prices. The evidence on that point will be gone into in detail by my associate.

We ask you also to consider the evidence in this case that is based upon opinion merely, which is not very great. There is only a page of the brief devoted to it. The only two witnesses who attempt to value either of these plants in its entirety by inspection are Mr. Randolph and Mr. Davis. Mr. Davis, however, as I have said, fortifies his opinion by the consideration of the cost of a new plant. Mr. Randolph does not attempt to fortify his by anything, and declined to produce, as you will remember, the data upon which he had based it. Then Mr. Blood uses, as you will remember, the same process for getting at the value of the electric light plant. As to the actual cost of the Company's plant, we ask you to take that into account, and upon page 332 of the brief will be found a reference to all there is in the evidence relating to it.

Now, Mr. Chairman, throughout this process at almost every stage of it you will find yourselves confronted with the great question of depreciation, and I would therefore like to address a few words to you upon that topic. Whether you attempt to value this plant in reliance upon the opinion evidence of the witnesses, in reliance upon their estimates of reproductive cost, or in reliance upon the estimates of the cost to create a new plant, whichever mode of valuation you adopt, or whether, as to me seems best, you take all the methods of valuation, all the modes suggested, and see if you cannot strike a common result from them,—however you approach this subject, whatever process or processes you adopt, you cannot escape from considering at almost every step the question, How much has this plant depreciated for any cause? If you attempt to get its present value from reproductive cost, you start out, of course, with the contract cost of the plant new; but you must allow something

for depreciation due to wear and tear, the advancement in the art, and such other considerations as may lead you to believe that some portion or the whole of the plant is not worth its reproductive cost considered from the standpoint of present mechanical utility. So if you start off with the cost of a new plant, you must deduct from that certain allowances to represent the difference in mechanical utility or value between that plant and the present plant, and that deduction is in a sense depreciation. It is a depreciation of the present plant from the cost of a new one. All deductions for defects are in a sense depreciation, and accordingly they are treated together in our argument.

Of course depreciation from wear and tear—that is, from use and age—is a conceded cause of depreciation, admitted by every witness in the case. And no question arises in this case concerning the actual amount of depreciation from wear and tear, except the question whether it is proper to estimate that kind of depreciation by means of a sinking fund theory, as is contended by Mr. Humphreys, but denied by Mr. Chase and the witnesses for the City. Singularly enough, the testimony in this case relating to the depreciation in the value of the gas plant from age and use is undisputed. All the witnesses on both sides agree to it as being about \$30,000. You will find that worked out in the brief in detail, and I will not dwell upon it now. We do not understand that there is any conflict of evidence that this gas plant has depreciated from wear and tear just about \$30,000.

The CHAIRMAN. Is that both sides?

Mr. MATTHEWS. Both sides. We contend that both sides substantially agree to that. There is considerable difference of opinion as to the depreciation of the gas plant from other causes. The witnesses for the Company do not allow anything for any kind of depreciation except that due to wear and tear,—that is, to use and age; that is, physical deterioration. But the City contends that physical deterioration is only one cause of depreciation, and that perhaps the least important. The City contends that the advancement in the art which is constantly taking place, particularly in the art of electric lighting, is so great as to

cause in itself and by itself and independently of wear and tear a sensible depreciation in the value of electrical machinery between the date of its installation and the date of its valuation, if any considerable period of time has elapsed between those two dates.

The City also contends that there is another cause of depreciation, also systematically ignored by the witnesses for the Company in their valuations: that depreciation which inevitably takes place to a greater or less extent whenever there is an enlargement or a partial reconstruction of the plant. It is possible, of course, to conceive of an enlargement of a gas or electric light works which should simply consist in an addition, and in that case there would be no cause for considering that any depreciation had taken place in the previously erected portions of the plant. But extensions are not made that way in fact, as everybody knows. Extensions are not made simply by the process of addition, but practically all reconstruction or enlargement involves to some extent a destruction of some part of the existing plant. If you add to a building, for instance, you tear down the external wall on the side to which you add, as a rule; or, if you do not, the wall has ceased to be worth anything, it ceases to be of value as an external wall, and has no value except as a partition wall, which may be nothing. So in the extension of the manufacturing capacity of a plant it is conceivable, of course, that you should simply add units to the plant that you already have. But you may very well do something else: you may take out some of your existing machinery and sell it as second hand, and replace your entire plant, so far as the apparatus goes, with a different type and with larger units. In other words, your reconstruction or enlargement may take such a form as to necessitate some depreciation of the original plant by reason of a partial abandonment or destruction of that plant.

Now that is a cause of depreciation, as well as depreciation due to the advancement in the art, which is perfectly well recognized in manufacturing enterprises. These are all causes of depreciation which, if not recognized by a manufacturing company, would soon render it insolvent. They are causes of depreciation



which are recognized, as this brief will convince you, by the witnesses for the Company themselves ; but they are causes of depreciation which the witnesses for the Company will not take into account in valuing the Company's property. The witnesses for the Company know that this plant, the electric light plant particularly, is not worth anything like its reproductive cost, by reason of the antiquated character of its machinery. They know it. They know that this electric light plant will not operate as economically as it ought. They admit it. Mr. Wright tells you so, Mr. Prichard tells you so, Mr. Humphreys tells you so. Mr. Humphreys tells you that the gas cost 8 cents per thousand to manufacture more than it ought ; and so on all down the list. All the witnesses for the Company in their more candid moments, and even the most unscrupulous among them, even those with the least sense of professional conscience, were obliged to admit on cross examination that neither of these plants could be operated as economically as ought to be the case. They all admitted that the type of machinery in the electric light plant was old and out of date, obsolete, and had ceased to be manufactured. They admitted all these facts, Mr. Chairman, and yet there was not one of them of sufficient intellectual honesty to take it into account. There was not a witness for the Company who had the courage of his own knowledge and who attempted to reach a present value for either plant by a comparison with what the present state of the art would indicate as a proper plant to have. The result is that this whole case has been tried for the Holyoke Water Power Company upon the theory of reproductive cost, the cost of a new plant identical in design and material with the present plant, and an inadequate allowance for the wear and tear alone ; and all these other considerations which these witnesses were forced to admit ought to apply were not applied. The result is that the evidence for the Company upon this case does not reach the point of present value. The witnesses for the Company never got there. They began with reproductive cost, as was admissible, we concede, although not particularly instructive in a case like this. They took the next step of estimating depreciation for wear and tear. They did not allow enough in the case of the

electric light plant on that score, but they did allow something. And then, Mr. Chairman, they stopped; and why did they stop? Because they knew that when they took the next step and tried to bring the value of this plant down to present times upon a comparison with what an electric light plant or a gas plant ought to be, in good mechanical working condition, that they would have to write off a large part of their inflated valuations, and that is what they were not in this case to do. Consequently, they stopped their process half-way through.

I maintain that you must, on the evidence in this case of the present value of the gas or electric light plants of the Holyoke Water Power Company, for the purposes of their use in January, 1898, accept the evidence of the witnesses for the City. Depreciation is where the witnesses for the Company fail. They also fail in ignoring the cost of a new plant; and although some of them in their more candid moments admit — even Mr. Randolph, for instance, about as uncandid a witness as counsel would expect to run across in a case — admit the value of this plant would not be any more than the cost of a new plant, but he had not attempted to figure out what a new plant would cost. He knew too much for that. He knew he would get too small a value for this plant, and consequently he did not do it. These witnesses in their more candid moments admit the correct theory of valuation, but do not attempt to apply it. The only evidence in the case, therefore, of present value, on any intelligent theory of valuation, is that offered by the City.

You will find the evidence upon this question, particularly all the collateral and incidental admissions of the witnesses for the Company as to the causes of depreciation, enumerated in the brief, and I will leave the further application of this matter for my colleague who is to follow.

I would like to say just one word, however, as to the methods adopted by the witnesses for the Company in treating this question of depreciation. I have already called attention to the fact that they admit that depreciation goes on from other causes than wear and tear, and yet decline to take it into account in reaching their values, but they do not even apply their own theories of

depreciation from wear and tear consistently. Some of these gentlemen testified in this case too often. They testified for the Company in chief and they testified for the Company in rebuttal, and we want the Commission to contrast the testimony of Messrs. Allen and Whitham, for instance, in rebuttal with the testimony of the same gentlemen given in chief, particularly upon this question of depreciation. They allowed a great deal of depreciation in rebuttal, because it was in the interest of the Holyoke Water Power Company at that stage of its case to do so. They were then engaged in valuing water power, and the higher they could get the depreciation on the steam plant, why, the higher value they were able to work up for the Company's water power; and consequently we find some rather high depreciation allowances. But when these same gentlemen were testifying for the Company in chief as to the actual depreciation that had taken place in the Company's steam plant, you do not find the same depreciation allowances made. You find different and very much smaller ones. The interest of the Company at that time was to minimize depreciation in order to swell the aggregate valuation of the gas, electric light, and steam plants.

It would take me not only all the rest of the day, but all tomorrow, to point out the various inconsistencies of the witnesses for the Company upon this question of depreciation, and I therefore will not attempt to do it, referring the Commission to the brief; but I do want to say a word about this sinking fund theory, and to ask the Commissioners to note a very significant fact: that if you take, as is done in this brief,—when we come to consider the application of the theory of depreciation to the gas plant and electric light plant in detail,—Mr. Humphreys's annuity tables for the gas plant, and Mr. H. A. Foster's for the electric light plant, if you take the figures of the Company's experts, indicating the normal or probable life of the different parts of the gas and electric light plants separately, and if you treat those annuity tables as they ought to be treated, to wit, as indicating that the owner of the plant must put aside a certain percentage or proportion of the first cost, based upon the ratio which the elapsed life of the part under consideration bears to its total

probable life, into the plant from year to year, you get a depreciation which almost exactly tallies with the estimate made by the witnesses for the City—almost exactly. The difference is less than 5 per cent.; and therefore we could try our case, so far as depreciation went, upon the testimony of Mr. Humphreys and Mr. Foster as to the normal life of the different parts of a gas and electric light plant, if they are wrong in their theory that, having got the probable life, you can use a sinking fund table and put into the plant each year for depreciation, not an amount proportionate to the probable life of the plant, but such a sum as if put into a separate sinking fund will, at the expiration of the term or period of normal life, sink the first cost of the plant.

I will therefore ask you to consider whether the sinking fund theory is a sound one or not. I will ask you to contrast the opinions of Mr. Humphreys and Mr. Foster with the opinion of Mr. Chase. I will ask you to consider Mr. Chase's argument upon the point, and Mr. Warner's. I will ask you to consider the fact that nobody ever did it; no witness in this case has been able to point to a corporation that worked its annual depreciation allowance out on a sinking fund theory. And, finally, I will ask you to direct your attention to the practice of other corporations in this State, both gas and electric, as shown by the reports of the Gas Commission tabulated by Mr. Chase. They either do not use the sinking fund theory at all, or, if they do, they assume a very much shorter period of normal life than any of the witnesses in this case think is right. It does not need much argument, it would seem to me, to satisfy the Commissioners that the theory of a sinking fund as applied to depreciation in a manufacturing plant is wholly wrong. A plant, we will say, as a whole, to take a simple case, has 20 years to live and no more. That is its efficient normal life. That is probably fully the average or greater than the average of electric light plants in this State, but for the sake of simplicity I assume 20 years. This means that notwithstanding all the care bestowed upon a plant, notwithstanding that an adequate amount each year is spent for repairs and current renewals, at the end of that 20

years the plant will be gone. Now how are you going to take care of that contingency? How are you going to put the Company in such position that at the expiration of this period of life it will have its assets unimpaired? They say that you can put such an amount into a sinking fund each year as will enable you to have at the expiration of the term a sum equivalent to the first cost of the plant. If the first cost, for instance, was \$100,000, and the total life of the plant, as I said, 20 years, they would say that an annual allowance of \$3,000 would be sufficient, because that amount, if put into a sinking fund, would, compounded at 5 per cent. per annum, equal \$100,000 in 20 years. So it would. We concede that; but we say that that cannot be done. We say that this money has got to go into the plant and cannot be put into a sinking fund. That is the whole vice of the sinking fund theory, Mr. Chairman. It is not practical, it is not possible, to do it, and have your plant continue to operate at the same relative efficiency and profit. While the plant is new, during the first five years of its existence, nothing perhaps need be put into it beyond current repairs. But if you let a manufacturing plant run down its whole living course to the point of zero, to be reached *ex hypothesi* in the 20th year, is that plant going to operate as profitably during the last 15 years or 10 years or 5 years or 1 year of that term as it did at first, when it was new? Every man's experience knows to the contrary. You cannot put this annual allowance into a sinking fund and let it accumulate in the expectation that at the end of the term you will have your capital and profits both. You may get your capital back, but you wouldn't have had any profits out of your plant in the mean time. You would reap a profit during the first few years when the plant was practically new, but you couldn't make a dollar out of the plant during the last 5 years, and you probably wouldn't make much of anything during the intermediate period of 10 years. Experience shows that you cannot operate a manufacturing plant except by putting into it so much each year as will equal the depreciation which takes place in excess of what can be taken care of by annual repairs. That must be put into the plant, so as to keep the assets

of the corporation constant, so as to keep the value of the plant from an economical standpoint at a constant figure, equal to its first cost and equal to the capitalization of the Company. Then, under those conditions, the plant can be operated continuously at the same ratio of expense to income, and at the end of the term you are just as well off as you are on the sinking fund theory. The money is in the plant instead of being in bank, and you are better off, because in the mean time you have maintained the earning capacity of the plant at its original figure; but you don't increase the earning capacity of the plant, you don't earn compound interest on the annual payments, and therefore you must, in the case supposed, put in \$5,000 a year, not \$3,000.

Nobody does it, nobody ever dreamed of doing it, and it never will be done twice. Somebody might run an electric light company into bankruptcy, but they would never do it a second time. They would not do it the first time if they trusted to Mr. Foster's testimony in this case to the article which he wrote for the *Engineering News*, in which he stated only a year or two before he testified in this case that the annual allowance for depreciation should be about five and a half times what he gave on the witness stand here. Nobody ever did the thing, Mr. Chairman, and nobody ever will. It is an absolute fallacy.

There is another difficulty. Assuming that it is proper to allow for annual depreciation by means of a sinking fund, what has that got to do with valuing the plant at any given date? We have not got that sinking fund in this case to value. There is no fund that goes with this plant. There is nothing but the plant; and, when you are considering the aggregate depreciation that has taken place in the plant in a given period of time, a sinking fund theory has no application, because you are not valuing the fund.

The most instructive comment upon this theory is to contrast what the witnesses for the Company have said in their moments of unconscious candor with the theories upon which they have valued the property involved in this case, and to contrast what they have said upon depreciation when they were trying to work out a high value for the plant with what they have

said upon depreciation when they were trying to work out a low value for a steam plant, for the purpose of getting a high value for the water power.

Starting off, then, with the plant, taking up reproductive cost or the cost of a new plant, considering the additions that would be necessary to the present plant to make it equal to that of a modern type plant in efficiency and economy of operation, considering depreciation in all its aspects, I have brought you down to the point where you ought to be able, it seems to me, to reach a final value for the land, buildings, and machinery in their physical aspects; that is, a final value for the materials, the labor, and the land. And then to that, as I explained the other day, there should be added a fair and reasonable allowance for the additional value of the assembled plant as a whole, or, as they say, as a going concern; and for that value, Mr. Chairman, you must depend upon the evidence in this case. It is certainly not more than 12 per cent. I believe that figure, which is what we suggest, struck upon the present or depreciated value of the plant, but, including also the value of the land, will amount to more than many of the witnesses for the Company themselves assumed to be sufficient; for many of them allow simply 10 per cent. upon the new cost of the buildings and machinery. If you take 12 per cent. of the present value of the buildings, machinery, and land, you will get a result not very different from what you would if you took 10 per cent. upon the new cost of the buildings and machinery alone.

I would like simply to run through the index to the valuation of the gas plant and electric light plant in detail, for the purpose of indicating to the Commission what we conceive to be the order of inquiry and the considerations which they should take into account, leaving the details to be explained by Mr. Green. First, we ask you to note the general layout and description of the plant. We ask you then to consider the defects of the plant in respect of the land, the inability to extend the plant upon that area of land. We ask you then to consider the defects of the

buildings and machinery at the works,— the holders, for instance, their excessive number, their small size, the covers, the fact that they cannot possibly be worth the cost to reproduce them ; the excessive cost for defects appertaining to the purification plant, which is one of the worst features of the gas works ; and the excessive cost of manufacture as a whole. We ask you to note, for instance, that the cost of purification at this plant is four or five times what it ought to be, according to Mr. Randolph's testimony, and that the total cost to manufacture is 8 cents a thousand more, according to Mr. Humphreys, than it should be. Then we ask you to note in the distribution system the excessive percentage of small size mains, the excessive amount of leakage or gas unaccounted for, which loss all the efforts of the Company in rebuttal has failed to account for. We ask you to go through this plant from beginning to end and note the defects in it. We then ask to consider what the contract cost exclusive of land would be of a plant of equal capacity and modern design. Then if you consider that you can get any good whatever from considering the reproductive cost of this plant, we ask you to take it up in the manner suggested in this brief ; first the buildings, then the machinery at the works, the holders, then the distribution, then the miscellaneous items, and consider in every case before you reach a result by averaging whether you cannot reach a better, sounder, and more accurate result by analysis and elimination. If you can, we ask you to apply that process first, and only to average as a last resort. We then ask you to go back to the defects which you noted in the plant, and endeavor to determine the value of them ; that is to say, the amount that should be deducted either from reproductive cost or from the cost of a new plant by reason of the existence of these defects. . First, the physical deterioration of the plant, that is, the depreciation from age and use ; then the additional depreciation or deductions for the other causes that I have mentioned,—small and scattered holders, unnecessary covers, defects in the purification plant, excessive cost of purification, excessive cost of manufacture, the admittedly uneconomical and defective system of mains and pipes, etc., etc.



At that point you should be able to make up your minds as to the value of the materials and labor in the plant ; and, having got the value of the land for the purposes of its use as a separate and independent factor, you add the two together. You have then got each item valued in relation to the rest of the plant, and the aggregate represents the value of the plant as a whole,—that is, the value of the land, labor, and materials in it. But only upon the condition that you value it by this process, and have not been misled into adopting the process suggested by the Company, of taking the land at the highest value for any purpose, and the reproductive cost of the buildings and machinery. If as you go along you have made all these deductions for the relative inefficiency and lack of mechanical value in the several parts of the plant when taken in connection with the others, then the aggregate of the figures thus obtained represents your judgment of the fair market value of the land, labor, and materials, as a whole, for the purposes of their use, taken in connection with each other. Add to that a reasonable percentage or allowance for the value of the plant as a going concern, and you have your final valuation.

The valuation of the electric light plant should be made by similar processes, and we submit in a somewhat similar order.

- Consider, in the first place, the condition of the plant, then its defects. Consider the utterly inadequate area of land offered, the wretched boundaries suggested, and the unavailability of the site for any other purpose than that of maintaining the particular buildings now on it. Consider the boilers and engines, how inadequate they are for the operation of an electric light station, there being no small engine to run the plant in the hours of light consumption. Consider the electrical machinery in the station, how it all dates back, with the exception of the alternator, to the type of 1884. Consider that, so far as the arc lights go, there hasn't been a change in the system of the Company in fourteen years, between 1884 and 1898, the most productive years in the history of the art of electric lighting. Consider that there isn't an electric light company in Massachusetts that can show to-day such an aggregation of antiquated and obsolete machinery

as you find in that electric light station in Holyoke. The witnesses for the Company are very well aware of what there is in other plants in Massachusetts, and there is no evidence in the case of a single central lighting station in the whole Commonwealth, or in the whole country, for that matter, that was supplying in January, 1898, four or five hundred arc lights, public and commercial, by means of 16, 30, or 40-light dynamos. Go through the electrical apparatus of that central lighting station with care. Consider how much of it would be bought if you were installing a new station, and you won't have much difficulty in concluding, as stated in our brief, that the only reason for the continuance of that apparatus there to-day is the continuation of this case. Consider the enormous amount of belting and shafting there is between the water plant and the engines, and the amount of machinery rendered necessary by the separation of the buildings, and by the fact that the plant was built before the days of direct connected units. Even, however, if they had used belting, they wouldn't have had one-tenth as much belting and shafting if it hadn't been for the fact that the hydraulic plant was situated in another building, quite remote from the dynamos which it was to run. Consider the distribution system. Consider the evidence relating to the rotten character of the poles, the fact that they own so few poles, and the fact that they haven't got an independent distribution system of their own, but are dependent for the right to string their wires in the streets of Holyoke upon the good will of other corporations. Consider the list that has been put in of the poles owned by other corporations, upon which the wires of the Holyoke Water Power Company are strung. And finally, Mr. Chairman, consider this: that every witness for the Company that was asked upon cross examination — Prichard, Wright, and the rest of them — admitted that the cost to operate this plant was high, and that none of them took it into account. Our witnesses did. They knew it was high, and figured out how much higher it was than it ought to be. They tell you the reasons, and we ask you to believe those reasons. Then consider, as in the case of the gas plant, what it would cost to remedy these defects, the cost of a modern plant,

and the cost to duplicate this plant. Then, when you have got those factors, I would suggest going back to the defects, and the endeavor to represent them in dollars and cents in the way of depreciation or deductions from reproductive cost, or the cost of a new plant. Then, having made proper allowance or deductions for depreciation or defects, you have a resulting value of the different parts of the plant taken in connection with each other, to which you add a fair allowance for the additional value of the plant as a connected operating whole, and you have the present fair market value of the plant.

The date of valuation seems to be conceded to be January, 1898. All the evidence for both sides has been put in upon that theory. It is true that some of the witnesses for the Company were asked whether there had been an increase in the price of materials since their original valuation. And some of them said that there had been. But the evidence upon that point is very meagre, and wholly insufficient to permit the Commissioners to make any valuation as of any date other than January, 1898. One of the witnesses for the Company states distinctly that he does not think the value of the plant as a whole would be affected by the increase in the price of some of the materials. That was Professor Robb.

The law upon which we rely for the date of valuation is the rule which obtains in all the cases where property is taken by eminent domain under statutes which provide that the title shall not pass until the valuation or award is made, or until the transfer is accepted. Those will be found on page 242 of the brief. The authorities are not numerous, because in most of the States of the union, including Massachusetts, the title passes under condemnation proceedings upon the date of the taking; but in Illinois and some other Western States they begin proceedings in condemnation by a petition, and the title does not pass until the money is paid and the transfer made. In those States the courts hold that the valuation must be made as of the date when the proceedings were begun. A similar statute was passed in this State, and was considered in the case of *Burt v. Insurance*

*Company*, 115 Mass. 1. In that case, under a statute providing that the title should vest only on the payment of the award made by the jury and confirmed by the court, it was held that the valuation must be made as of the date of the filing of the petition.

Mr. COTTER. That was in *Burt v. Insurance Company*?

Mr. MATTHEWS. Yes, 115 Mass. 1. That was a case that arose in the taking of the land where the Federal Building now is in this city. Incidentally I might refer to the remarks of my brother Brooks, in Vol. X. p. 132. In fact, his evidence as well as ours has gone in on the theory of valuation in January, 1898. I assume there will be no contention between the parties as to the date of the valuation of this property.

The CHAIRMAN. Do you agree to that, Mr. Brooks?

Mr. BROOKS. No, sir.

The CHAIRMAN. You don't agree or disagree?

Mr. BROOKS. I do not agree.

Mr. MATTHEWS. Do you disagree?

Mr. BROOKS. If I don't agree, I must disagree.

Mr. MATTHEWS. Then we must leave the matter as it stands, resting upon the case of *Burt v. Insurance Company* for a ruling by the Commissioners that the date of valuation is January, 1898, the date upon which the rights of the parties to this case became fixed in law. If the Commissioners should conclude that some other date is to be taken into account, then we contend there is no evidence in the case upon which any award can be made. But a difficulty remains, Mr. Chairman. However much difficulty Mr. Brooks may have in reconciling his final argument with his statement which I referred to —

Mr. BROOKS. I defined our position in my opening statement distinctly. Our position is directly contrary.

Mr. MATTHEWS. I am referring to your other statement in Vol. X.

Mr. BROOKS. I am referring to my opening statement.

Mr. MATTHEWS. Well, I rather thought that after ten volumes of this case you had learned something.

Mr. BROOKS. Not from any such source of education as I have had.

Mr. MATTHEWS. We are content to let him flounder on that subject. But the difficulty, Mr. Chairman, does not rest with the date of valuation. The difficulty arises here : that, since it became evident or certain that the City was going to take these plants, or some part of them, the Company has deliberately allowed them to depreciate.

Mr. BROOKS. Where is there evidence of that ?

Mr. MATTHEWS. I am going to give it to you right off.

Mr. BROOKS. All right.

Mr. MATTHEWS. They have not only made no allowance whatever for payments into the plant, no expenditure upon construction to make good depreciation, but have allowed the ordinary expenditures for repairs to fall off. The ordinary expenditure for repairs on this plant has become a sum which is simply ridiculous. This Commission, we contend, has no authority to compel us to pay the value of this plant in January, 1898, unless it makes a reduction for the depreciation in the value of the plant since the date of valuation.

In the first place, as to the amount of that depreciation, the evidence in the case discloses every single addition to the plant that has been made since January, 1898. The last witnesses on the stand, almost, were Mr. Snow and Mr. Winchester, and they stated everything that the Company had put into the plant to make good depreciation since January, 1898. It was practically nothing, either in the gas or electric light plant. There have been no additions at the works in either case, and very few extensions of gas mains and electric light wires. Nothing more. In other words, this plant has been depreciating, according to their own evidence, at the electric light plant at the rate of three thousand dollars a year, and at the gas plant at about the same rate. Now what is the Commission going to do ? If we don't get this plant for ten years from now, are we to pay its value in 1898, although it will have depreciated, on the basis of the Company's own witnesses, at the rate of six thousand dollars a year ? We apprehend not. We apprehend that this plant is to be taken and valued as of January, 1898, but that the City is to have credit for the depreciation which must necessarily take

place in the plant between that date and the day of transfer, unless the Company itself makes good that depreciation by means of expenditures on construction. Therefore we claim that the Commissioners, having found the value of these two plants in January, 1898, should award that sum to the Holyoke Water Power Company upon the day of transfer less an allowance which they shall specify in their award to cover the probable depreciation of the plant in the mean time, plus an allowance for such additions to the plant beyond ordinary repairs as the Company may in fact make during that period.

Such a course will work even and exact justice to both parties. It will give the Company the value of its plant in January, 1898, less the depreciation which must inevitably take place in any manufacturing plant between that date and the day of transfer; it will give the Company all the income and profits of the plant during that period; it will give the Company the benefit of any extensions or improvements or additions which it makes in excess of ordinary repairs; and, on the other hand, it will not compel the City to pay for a plant in the year 1908, we will say, or 1902, its value in 1898. Of course, in the case of *Burt v. Insurance Company*, and in cases where property is taken under eminent domain, and the title passes at the time of taking, no such question can arise, because the purchaser enters at once into possession of the property and enjoys its rents and profits or the use and occupation of the land, as the case may be. Ours is a peculiar law. It contemplates the creation of a most peculiar relation between the parties *pendente lite*, and it requires, Mr. Chairman, a novel and peculiar award. You cannot take into account the fact that prices may have increased between the date of the award and the date when some of these witnesses testify, for *non constat* that since then the prices may not have gone down — as everybody knows they have — and *non constat* that the prices might not have gone the other way. Instead of there being an increase in the cost of copper and iron in 1900, when some of these gentlemen testified, there might have been a decrease. It is a poor rule that does not work both ways; and the only fair way to both par-

ties under the Municipal Lighting Law is to take some fixed date for the valuation, irrespective of the fluctuations either way in prices of material or labor after that date.

The CHAIRMAN. Have you discussed the question in your brief anywhere, or are you going to discuss it, as to whether interest runs on the award from the first of January, 1898?

Mr. MATTHEWS. I should assume that it does not. No, sir, we have not discussed it at all.

The CHAIRMAN. Is it worth considering?

Mr. MATTHEWS. I should not think so, sir. At least, we do not care to be heard on it.

The CHAIRMAN. I don't know anything about it.

Mr. MATTHEWS. We had not supposed that anybody could by any possibility allege that we should pay interest while not having possession of the plant, and it has never been done in these cases.

The CHAIRMAN. I don't know anything about that.

Mr. MATTHEWS. No, sir, it has never been done. I have never heard of the question being raised, although I should not be surprised to hear it raised by my brother in this case. It would only be the last of a long series of surprises.

Mr. BROOKS. I thought you had been surprised a number of times.

Mr. MATTHEWS. Now as to the cost of repairs made by the Company before and since January, 1898: look at the amount of money that the corporation spent on its gas works prior to that time and the amount that it has been spending since, and you will find that the repair account dropped 55 per cent. at once. In the case of the electric light plant you will find a still more startling reduction in the expenditure for repairs. You will find another fact, too: that the Company, since January, 1898, has been spending for repairs upon its gas works a small fraction only of the amount that it ought to spend to keep its gas works in repair, based upon the practice of other companies in the State; and you will find that in the case of the electric light plant it has been expending for repairs a most ridiculously inadequate sum in comparison with the amount spent by other

electric light companies in the State in annual repairs. You will find those figures all worked out in the brief, and they will be gone into in detail, I suppose, by Mr. Green, if he has time. They can leave but one impression upon your mind, one necessary impression, from which you cannot escape; and that is that there has been a deliberate election on the part of this Company to let this plant run down. Why shouldn't they? They are getting all the rents and profits out of it; and as long as they can prolong this litigation, and somebody else is going to take the plant at the end of it, there is no inducement to them to keep the plant up. There is certainly no inducement to put into the plant anything beyond what is needed for ordinary repairs. They would be more than human, perhaps, if they expended money for extensions and improvements. They ought, however, to keep the plant in decent repair. As a matter of fact, they have done neither. They are spending about a quarter what they ought to on the electric light plant for repairs, and about half what they ought to on the gas works, and they are spending nothing at all or substantially nothing at all for improvements, extensions, or additions.

Under those circumstances, Mr. Chairman, it would be a denial of justice to make the City of Holyoke pay the value of this plant in January, 1898, when it is not going to have possession of it for years to come, so far as we can see, and when there has been a necessary depreciation in the plant during all that period, and when there has been a further depreciation, unnecessary, in fact, and due entirely to the failure of the Company to expend a proper amount for repairs. Under those circumstances it is inconceivable that any court of law should compel the City to pay the value of the plant in January, 1898, without an annual allowance for the depreciation of the plant due to one or both of these causes between the date of valuation and the day of transfer.

As to the amount which should be allowed for the depreciation after the date of valuation, we have discussed that in the section of our brief devoted to depreciation. We think that perhaps, on the whole, you can do no better than to follow the statutory



rule of 5 per cent. 5 per cent. is recognized in the Municipal Lighting Act itself as the current and ordinary depreciation in a gas works or electric light plant. It is probably more than need be allowed strictly in a gas works, but it is considerably less than the depreciation in an electric light plant, according to the allowances made by the different electric light companies in the State as reported by the Gas and Electric Light Commissioners. On the whole, however, considering that this ratio, 5 per cent. per annum, struck upon the land, buildings, and machinery, on the total amount paid for the plant, has received the sanction of the legislature, I do not know that the Commissioners could do any better than to adopt the amount themselves; although, strictly speaking, it is low for the electric light plant.

The CHAIRMAN. What are you going to say about this, Mr. Matthews? We may do this, I will say, but then litigation may carry this thing on a good while longer. What is going to be done with reference to that?

Mr. MATTHEWS. I have failed to make my point clear. I do not ask that you should figure up what this allowance amounts to. I ask that you shall award the Company so much money, say \$340,000,—which is our contention as to the value of these plants in cash,—less a sum equivalent to 5 per cent. per annum on that amount between January, 1898, and the day of valuation.

The CHAIRMAN. I understand it.

Mr. GREEN. And the day of transfer, you mean.

Mr. MATTHEWS. The day of transfer, I should say.

But that is not all, Mr. Chairman. If the Commissioners did that, it would result in injustice to the Company, because, as a matter of fact, they must put some money into extensions in the mean time. There have been very few extensions,—so few that, on the principle of *de minimis*, the Commissioners need not consider them. Some have not been paid for at all. Some have been paid for by the consumers. Possibly the Commissioners can find sufficient evidence in the case to value them. They are all referred to in the brief, where Mr. Snow and Mr. Winchester describe them. Possibly the Commissioners can figure out their

value to the present time. We do not care to be heard on it. It is a very small matter, anyway. But that is not going to help things, because this litigation may run for some years more, and, after the Commission has adjourned, the Holyoke Water Power Company may see fit to spend more money on extensions. We see no escape, Mr. Chairman, from the necessity for a supplemental inquiry at or immediately before the transfer of the plant to have the value of these extensions determined; and the City must pay, in addition to your reward (less the allowance for depreciation, figured up at the annual rate which you award for the period elapsing between the day of valuation and the day of transfer), the value of these extensions.

Having carried, or endeavored to carry, the Commissioners along with me through the general principles of law applicable to this case, and having tried to indicate to them the process of application in some detail, I will now direct my attention to a special question of law presented by this case; and that is the question whether the Commissioners should include the gas works at all in the transfer. It was known, of course, that the gas works was built along the river, but it was not known until Vol. XIV., when Mr. Gross was put upon the witness stand, and produced a map, that practically the entire site of the gas works was in the river; that is to say, that it was built upon land reclaimed from the bed of the Connecticut River. Practically the whole of it, Mr. Gross says, was below the line of original high water mark, or original low water mark, I have forgotten which, — original low water mark, I think.

That fact, Mr. Chairman, which is undisputed, raises two questions of law. In the first place, Who owns the river bed at that point? And, secondly, If the Holyoke Water Power Company owns the fee of the river bed, had it any right as against the State to encroach upon the river, to fill the land in, and to build its works there?

We contend that the Company's title to the site of the gas works is defective in both particulars, and that, having a defective title, the Commissioners have no jurisdiction to compel the

City to take it. It may, of course, be that there is not much practical danger of our being ousted if the Commission decides that we should make the purchase. But that, Mr. Chairman, if we are right in our law, is no matter ; it rests with us to determine whether we want the gas plant or not, and we do not. We do not want it on any terms. We do not want any of their property,—gas works, electric light plant, or water power ; and, if we have got to take any of it, we want as little of it as possible. Consequently we present these two technical questions of law for your consideration.

The facts of the case are that the Holyoke Water Power Company has put in deeds from its predecessors in title, which, if those predecessors had any title, would convey the fee in the land now occupied by the gas works on the river. At the common law the riparian proprietor owns to the middle of a fresh water stream, and that rule holds in Massachusetts as to the Connecticut River. The deeds that the Holyoke Water Power Company has introduced in evidence show a conveyance from certain persons of enough of the shore to carry the locus in question. So far, therefore, as that question is concerned,—so far as the question who owns the fee in the land under the gas works is concerned,—it turns upon the validity of the title of the predecessors in title of the Holyoke Water Power Company, the receivers of the Hadley Falls Company, and the other parties whose deeds have been put in evidence. No deeds have been offered in the case running back of 1840. I think that is earlier—

The CHAIRMAN. The Holyoke Water Power Company was not in existence then, was it ?

Mr. MATTHEWS. No, sir, the Holyoke Water Power Company obtained its title in 1859 by several deeds from Smith and others, receivers of the Hadley Falls Company. But the Company has not stopped there ; it has put in other deeds, and we admit, for the purposes of this argument at least, that if the persons whose deeds are put in evidence had title, then the Holyoke Water Power Company has title to the fee. We do not concede they had any right to build,—that is another question ;

but we concede that they had the fee, providing their predecessors in title had the fee. But we say there is no evidence in the case that their predecessors in title had the fee. We contend that neither the Holyoke Water Power Company, the receivers of the Hadley Falls Company, the Hadley Falls Company, nor any of its predecessors in title, so far as has been shown in this case, had any title whatever as riparian owners to that portion of the shore opposite the place where the gas works was built, or (consequently) to the locus or site of the gas works itself. We claim that the title to this property rests to-day either in the city of Springfield or in the town of West Springfield. We show the original grant by the Colony of Massachusetts Bay of Oct. 17, 1654, supplemented 30 years later by the ordinance of May 16, 1684, to the town of Springfield. West Springfield was set off by a special act, Chap. 26 of the Province Laws of 1773-74, passed in 1774, and that is where the title to this property stands to-day so far as our researches go. It belonged, of course, originally to the Colony of Massachusetts Bay. It passed by the terms of the colony ordinance to the inhabitants of the town of Springfield, and thence it passed, we think, by the act of separation to the inhabitants of the town of West Springfield. The act of separation is somewhat ambiguous in its terms,—that is, the act of 1774; but apparently the provisions in it were adequate to convey all the land within the limits of the new town, which was then owned by the town of Springfield in its corporate capacity, to the inhabitants of the new town as a whole,—that is, to the new town in its corporate capacity.

The CHAIRMAN. Is Holyoke a part of West Springfield?

Mr. MATTHEWS. Yes, sir, the city of Holyoke was subsequently set off from West Springfield by an act of the legislature, which did not pass title to anything, according to our contention. We therefore do not cite it. We leave this title in the town of West Springfield or in the city of Springfield. And if the Company can, out of those ordinances or any other deeds or conveyances which exist, spell out a chain of title from the town of West Springfield or the town of Springfield to the receivers of the Hadley Falls Company and to themselves, the

present Holyoke Water Power Company, they are welcome to do so. We have been unable to do it. We say that they were squatters on the river; that they never had any title; and that they are unable to-day to show any title but a title resting on prescription. And we say, Mr. Chairman, that we are not bound to take a prescriptive title.

We are not bound, we say, to take a prescriptive title and, in support of that contention we cite a long list of authorities, beginning with *Dressel v. Jordan*, 104 Mass. 407, and ending with *Martin v. Hamlin*, 176 Mass. 180 (pp. 250 and 251 of the brief).

The CHAIRMAN. You say you are not bound to take a prescriptive title?

Mr. MATTHEWS. That is our contention, that we are not bound to take a title that rests on prescription. That list of cases includes every case in the State courts in which this question has been considered, every decision on the subject, pro or con. They were not all cases, Mr. Chairman, in which a decree for specific performance was refused; but we have cited them all for the purpose of indicating just where the dividing line between a doubtful title, which the Court will compel a purchaser to take, and the cases where the title is so doubtful that the Court will not compel the conveyance to be drawn, is drawn. The rule of law as laid down in these cases is substantially this: that if the party who might dispute the title is not a party to the suit, a decree will not be entered.

Now we say that the jurisdiction of these Commissioners under the Municipal Lighting Law is substantially the same as that of a judge in equity sitting upon a bill for the specific performance of a written contract for the sale of real estate. A court of equity will not enforce a covenant of purchase if it appears that the title of the complainant is founded on prescription and if the parties who could dispute that title are not in court.

Those facts exist in this case here. Somebody can dispute this title. We suggest the town of West Springfield or the city of Springfield. Possibly somebody else can. But, whoever

they are, they are not in court; and they might come around after we had taken a conveyance under your award and dispute our title. We say we cannot be put to any such chance, our interests and rights cannot be jeopardized in that manner; and for that reason we contend that the Commissioners should omit the site of the gas works from the transfer. And, having omitted the site of the gas works, they must, as I argued the other day, omit all the rest of the gas plant from the transfer as property in the use of which the City would be at a disadvantage as compared with the Company, and also because the omission of the rest of the plant would be the only equitable course to pursue toward the Company itself.

But that is not the only reason, Mr. Chairman. There is another. Even if the Holyoke Water Power Company were the owners in fee of this land, if we admit that their title does not rest upon prescription, or that, resting upon prescription, it is still not of such doubtful character as to justify a court of equity in refusing a decree, still they had no right to fill the river in. The Connecticut River is a navigable stream, and the common law obtains as well with reference to navigable streams of fresh water as to navigable streams of salt water. Any encroachment by a riparian owner, whether he owns the fee or not of the bed of the river, as he does in the case of the Connecticut River, below the line of high water mark, of such a character as to interfere with the usefulness of the stream in any aspect, is a nuisance, the construction which he erects can be abated, and he can be indicted.

The authorities will be found cited on page 248 of the brief. The principal one is the case of *Commonwealth v. Chapin*, which was a decision arising under an attempt to create a nuisance in this very river, very near the city of Holyoke, if not within its present limits. In that case the law is laid down very clearly, that whether or not the encroachment in question is of such a character as to be unlawful is a question of fact for the jury in each case. So that, if this question should ever be tried by the Commonwealth, we should be sent to a jury, and we might lose our title, notwithstanding that we had bought it and paid

for it to the Holyoke Water Power Company. We cannot be put in the position of being obliged to litigate with the Commonwealth the right of the Hadley Falls Company to build these gas works in the river, depending, as it must, upon the question of fact, to be determined by a jury, whether the enclosure of that portion of the river bed interfered with the navigability of the stream for any useful purpose, or interfered with any other public right that existed in the Connecticut River at that point.

In respect to this objection, we have a double reliance. First, that the facts are not before the Commission from which they can infer whether or not this encroachment on the river was an interference with the navigability of the stream; and, secondly, that the only party who can raise that question, namely, the Commonwealth, is not before the Court. It seems to us that those are two conclusive reasons why the Commissioners cannot include the gas works in their award in this case.

The Company may contend that the prescriptive law of 1836 ran in their favor; but the Commissioners will remember that that law was repealed, in so far as anything below high water mark goes, by the statute of 1867. These works were built, according to the evidence, in 1849. Consequently the period had still two years to run when the statute was repealed. Of course, if that statute had been in force, the Holyoke Water Power Company would have gained a prescriptive title as against the Commonwealth; but no prescription runs against the Commonwealth except by virtue of the act of 1836, and that was repealed, so far as any question of this sort is concerned, two years before any right could have matured under it in favor of the Holyoke Water Power Company.

That the City is not estopped from objecting to the enforced purchase of a doubtful title by anything that has been done by it, hardly needs any argument. My learned friend can of course refer to the fact that the City has taxed this property for years as the property of the Holyoke Water Power Company, and has collected taxes on it; but the law is well settled that the action of a tax collector or tax assessor is the act of the State and not the act of the city. Tax collectors and assessors are State offi-

cers, and not municipal officers in any sense, no matter how they be appointed or elected; and their acts do not bind the city as a corporation.

The same rule applies to the pole rights in the streets, or whatever rights may have been given, although we have not been able to discover them, by the city or town of Holyoke to this corporation to maintain its gas pipes or electric wires in the streets. Whatever has been done in that regard has been done by the city officers acting as State officers *pro hac vice*, and not in any sense so as to bind the inhabitants of Holyoke.

A contention was made that the City had admitted the Company's title in its answer in this case. I was not able to discern the force of that suggestion when it was first propounded, and whatever thought I have been able to give to the matter since has rendered the task no easier. We do not admit any title. We admit simply that they had a gas works and an electric plant. We say nothing about the title, the whole of it or any part of it. The matter was noted at the first hearing, and leave was reserved to amend the answer in case an amendment should be deemed necessary; so that, before the conclusion of the argument, we shall submit an amendment to cover the possibility that our original answer admitted title.

That covers this case, Mr. Chairman and gentlemen of the Commission, in the general way in which I intend to cover it, so far as my part of this argument goes, except with reference to the question of water power, and I think I shall just about have time to finish that this afternoon.

In regard to the date of valuation, it occurs to me to suggest, in addition to what I have already said, that the position of the parties would be an impossible one unless the valuation is to be made as of the date when the rights of the parties became fixed. That, of course, was the month of January, 1898. If the Commissioners adopt that date as the date of valuation, they have not only the fact that all the evidence for both sides has been put in on that theory, but they have a definite date to go on; and by following the rule that we have indicated with reference to depre-



ciation since that date, and to extensions and additions made since then, exact and equal justice will be done both parties in this case, no matter how long this litigation lasts.

Mr. BROOKS. May I be permitted an inquiry?

Mr. MATTHEWS. Certainly.

Mr. BROOKS. On this matter of the question of the date of valuation, what is to become of the earnings in the mean time, according to your theory?

Mr. MATTHEWS. The earnings belong to the Company. I take it the Company gets the earnings, certainly. Our theory, Mr. Chairman, is this: that the rights of the parties became fixed as of January, 1898. That must be so as a matter of law on the authority of the *Hudson* case and of the *Braintree* water case. Justice is done to both sides of this controversy, no matter how long it lasts, if you award to the Company the value of the plant in January, 1898, less an annual allowance which you fix yourselves in the award; that is, the annual rate which you fix for depreciation during the period that must elapse between the day of valuation and the day of transfer, plus the value (to be determined upon a supplemental inquiry) of such additions and extensions as the Company chooses to make during that period.

Mr. COTTER. In the *Braintree* case it was determined, that being a water case, that the title passed as of the date that the town voted to purchase, was it not?

Mr. MATTHEWS. I don't remember. I was citing the case upon a different point.

Mr. COTTER. Of course it is under a different statute, and it is not conceded here that title did pass.

Mr. MATTHEWS. No, sir, I did not cite the *Braintree* case on the question of when title passed.

Mr. COTTER. In that case the decision settled it that the title passed when the town voted to purchase.

Mr. MATTHEWS. Yes, sir; but what I meant was this: that that case holds that the rights of the parties themselves became fixed, so that neither could recede, as of a certain date; and in like manner in this case, as was practically held in the

*Hudson* case, the rights of the parties became fixed in the sense that neither can recede, either when the Company sent its offer to the City or on the expiration of thirty days from the final vote.

The CHAIRMAN. I should like to ask this. In the *Braintree* case, which I knew something about, I have a sort of recollection there that the income did not pay the bills. Suppose that happened, so that the company was holding the property in the air. Didn't some question come up about that?

Mr. MATTHEWS. I will look into the *Braintree* case in reference to that point.

The CHAIRMAN. I wish you would. I simply ask you the question in order to have you look into it also.

Mr. BROOKS. If I may be permitted a suggestion —

Mr. MATTHEWS. Certainly, go ahead.

Mr. BROOKS. I agree at once with my friend on the other side that this statute is somewhat peculiar with reference to the time —

Mr. MATTHEWS. Do you want to ask a question? If not, I want to get through this afternoon, if I can.

Mr. BROOKS. Well, strike out what I was going to say. I was going to come to this: If it is to be taken as of 1898, is the City or is it not to pay rental on mill powers and water?

Mr. MATTHEWS. No, certainly not; because we don't get it.

Mr. BROOKS. I know; I agree; I didn't mean to leave it out.

Mr. MATTHEWS. We don't get it and don't want it, and hope we never will be obliged to take it.

Mr. BROOKS. I am assuming that.

Mr. MATTHEWS. Our contention is perfectly plain. The title does not pass under this act until the transfer is really made. In the mean time, the Company is in possession, operating the plant, and in full enjoyment of its rents, profits, and water. It is for that reason entitled to no interest upon the award between the day of the valuation and the day of transfer. But some date must be fixed for the valuation of this plant; and how is it

conceivable for the Commissioners to fix any date except the day when the rights of the parties become fixed, or the date when the title passes? No court has ever attempted to fix any intermediate period.

Mr. COTTER. Is there a statute stating that interest is to run before title is given or possession of the property?

Mr. MATTHEWS. I think not.

The CHAIRMAN. Sometimes it is called damages for detention; and in that very discussion on the question of interest, you will find the discussion in the water cases, that, instead of allowing interest, they have allowed damages, in those cases arising under right of eminent domain, under extraordinary circumstances.

Mr. MATTHEWS. There is no reason why we should pay interest, if the Company is to get the rents and profits.

The CHAIRMAN. I simply started the subject. I do not propose to preclude myself upon it. I am going to wait until you get through before I settle it.

Mr. MATTHEWS. We understand that the Company has the possession of the plant and the legal title to it, and everything included, the rents and profits and emoluments of the plant, until it is actually transferred to the City and the consideration money paid. In the mean time, we don't pay any interest, because they have the rents and profits.

The CHAIRMAN. Saying there weren't any rents and profits, what are you going to do then?

Mr. MATTHEWS. I don't know but what we should be willing to pay interest if we could get the rents and profits.

Mr. BROOKS. Supposing it was run at a loss?

Mr. MATTHEWS. I will consider that question with reference to the *Braintree* case to-night. In the mean time, I should like to finish my explanation of what we understand to be the only way in which exact justice can be done to both parties to this case. You have got to value this property as of some date, and there are only two dates which can be suggested which find any support in the authorities. One is the date when the rights of the parties become fixed, and the other is the date of transfer.

Now you cannot value this property on the day of transfer, because no one knows when that will be. The other date is the only one that remains open to you. That day has the sanction of our State Court in the case in the 115th Mass.; and that day has the sanction of the courts of other jurisdictions in this country where, as in Illinois, proceedings of eminent domain are begun upon petition, and title does not pass until the money is paid.

What other date can you select? If you take any other date, why not two or three dates? If you value this plant as of the date that Mr. Allen testified, why not as of the date when Mr. Robb testified? Why not as of the date that our witnesses testified? Why not as of the date when the Company's witnesses testified in rebuttal? If you value the plant as of 1900 or 1901, or as of any intermediate date, why not as of some still later date before the day of transfer? Why shouldn't this case be reopened indefinitely for a revaluation?

It does not seem to me you can reach any conclusion but that the valuation should be made as of January, 1898. Then you must adjust the equities of the parties with reference to that fact, and our present understanding of the manner in which to adjust those equities — subject to any correction I may want to make after considering the case the Chairman has suggested — is that the Company remains in possession of the plant and gets the use and rents and profits; that it receives no interest on the award; that the award is subject to a deduction for depreciation, fixed by an annual allowance by the Commissioners now; and that there must be a supplemental inquiry, on or before the date of transfer, in case the Company claims that it has during the interval that has elapsed since the date of valuation made any additions or improvements to the plants that have not been valued by the Commissioners.

Mr. BROOKS. Supposing there is appreciation?

Mr. MATTHEWS. There would be no difference, if it is appreciation from prices, from fluctuations in the market, appreciation on the one side or depreciation on the other, due to fluctuations in the price of labor and materials, and by that

what I should call adventitious or accidental causes which might work either way ; for *non constat* that they might favor the City or the Company, one or the other. Fluctuations due to that consideration must not be considered ; but fluctuations due to a constant and necessarily operating cause, such as depreciation, must be taken into account in some way, or the City will be in the position of having to buy a plant on a valuation made several years before, and notwithstanding the fact that the plant may have been allowed to depreciate at the rate of 5 or 10 per cent. per annum in the interval.

One additional suggestion that we make as to the only way in which to adjust the equities of the parties is that it will tend to promote a speedy adjustment of this litigation. If the Company is to have the valuation of its plant in 1898, and all the rents and profits up to the day of transfer, without any deduction on account of the necessary depreciation between the date of valuation and the date of transfer, there would be every inducement on the part of the Company to delay this litigation and postpone the day of transfer as long as possible by proceedings in this Court or in the United States Court. On the other hand, if the equities of the parties are so adjusted that they are not going to make anything out of that delay, why, there will not be the same inducement for delay.

As to the possibility that the plant should not be making any money at the time of valuation, it seems to me offhand that it should not receive any more consideration than a somewhat similar suggestion did in the Wakefield plant. It was the same suggestion.

Mr. BROOKS. That was in 1891.

Mr. MATTHEWS. Yes ; but, so far as this question is concerned, I don't see any difference between the two laws. There is the question of interest and as to who is entitled to rents and profits. It doesn't strike me that the Company is any worse off by reason of the passage of this act, if it is operating a losing venture, than without it. I don't see that the fact that the plant is not making any money at the time of valuation is any reason why the date of valuation should be changed or

why any different rule should be adopted as to interest or the receipt of interest and profits. If the business is a losing one, the Company would have lost money without the passage of the act, and therefore that consideration should not enter into the case at all. I may have something further to say upon the question to-morrow, after I have looked up the case cited by the Chairman.

The CHAIRMAN. I only put the question for the purpose of calling attention to it.

Mr. MATTHEWS. I am very glad you did.

The CHAIRMAN. I have no opinion about it.

Mr. MATTHEWS. Of course, if we are to pay interest, I suppose we are to have the rents and profits. I dare say we should get more by that exchange rather than less; but I have assumed that the Court would not take that consideration into account.

Now the water power offered in this case presents a great variety of legal questions, the first and most important of which is probably whether it is offered under the statute at all. The power offered, I will say, consists of two parts: first, that used in connection with the gas works; and, as to that, I will dismiss it from the case at once, saying that we will, as a matter of election, take the half-mill power of water offered by the Company in connection with the gas works, at the price offered, provided it is permanent power and provided there is no bonus to be paid for it; otherwise, not. We do that simply as a matter of election, because we consider that the quantity is reasonable and that the price is fair.

As to the power offered at the electric light station, we don't want it on any terms, or at any price. We don't want anything to do with the water power or the water plant, and we desire to raise every substantial or technical objection that we can to being forced to buy the plant or to hire the power.

I suppose that the lucid statement made by Mr. Brooks at the last hearing obviates the necessity of my arguing — as I had intended to argue, as the Commissioners will see by reading the

brief—that this power was not offered for valuation by the Commissioners. That argument had been based upon the peculiar language of the Company's original offer of Jan. 8, 1898, upon the statements made by counsel for the Company at various times during the progress of the case, and upon the manner in which the case has been tried for the Company. The statute, you will remember, provides that, after a town or city has passed the second vote, a company doing business in the community may elect to sell its plant and property. "Elect to sell" are the words used. Now the Holyoke Water Power Company, in its offer of Jan. 8, 1898, said that it "elected to sell" its gas plant and its electric light plant at a certain price; and then, in a separate and distinct paragraph, went on to add, "and offers to sell by lease," in such and such a form, such and such a quantity of water at such and such rent. It seemed to us that it was not the intention of the Company to offer its water power for valuation by the Commissioners, because it had not used the language of the statute, as it had in its offer of the plant, and because it had specified that the sale should be by lease, and upon specified terms, as to rent, use, and so forth. We considered, on the whole, that the Company intended to offer its gas plant outright for valuation by the Commissioners, and to offer the electric light plant and water plant for valuation by the Commissioners; and also, as appurtenant to the electric light plant, the privilege of obtaining water power upon the terms specified in its offer, or possibly the burden of hiring water power upon those terms. We considered that the offer of water power was a conditional offer, to be accepted or rejected as it stood upon certain terms as to rent and use, and that the Company did not intend to submit its water power for valuation, or the terms of its use for determination by the Commissioners.

That understanding of the Company's position is of course reinforced by what Mr. Brooks said the other day, so it becomes unnecessary for me to argue it; and I need only discuss the consequences of that position. We do not yet know, of course, the whole thought in the Company's mind. We do not, for in-

stance, know whether they assume that we must pay for the water plant at a valuation fixed by the Commissioners, with the privilege of having water power upon the terms offered,—that is, with the option of entering into such a lease as they tender us,—or whether the Company assumes that we must take the water plant burdened with the obligation and necessity of entering into such lease as is offered. That, however, is not so much a question of intent as of construction of the law. It is a question of consequence; and, being rather a question of law than of intent, we have not asked for any information from the Company upon the subject since our original failure to obtain it. In so far, however, as the Company's intent not to offer the water power for valuation by the Commissioners goes, that is plain, and therefore it remains only to consider what the consequences of that position are.

In the first place, we are inclined to agree with the Holyoke Water Power Company, that it has a right to make such an offer. We do not see how we can take the position that the Commissioners, notwithstanding the attitude of the Company, can say that the City shall have the water power at a valuation; because that would mean the taking of the Company's property against its will. It would be substantially a taking *in invitum* of the Company's water power, and, as I argued the other day, for such a taking we find no sanction or authority in the statute. We therefore stand with the Company as to the first consequence of its position; namely, that the Commissioners have no power to vary the terms of the Company's offer of water power against the consent of the Company. That is consequence number one.

Consequence number two, as we contend, is that the water power must be omitted from the transfer altogether. If the Commissioners cannot value it, we contend that they cannot include it in the transfer; because the whole scope of this Municipal Lighting Law is that the City shall take such property as the Commissioners determine is suitable for the purpose, either at an agreed price or at such a price as the Commissioners themselves shall determine. Property that is offered upon a set or fixed



price, not for valuation by the Commissioners, cannot, we contend, be included in the award, or transfer, because it cannot be transferred at an agreed price, the parties failing to agree, and it cannot be transferred at a price fixed by the Commissioners, because they have no jurisdiction to fix the price. Consequently, it must be omitted altogether.

The Company cannot claim that this water power offered has become annexed or affixed or appurtenant to the electric light site in any legal sense. I shall go into that later. But if it did make that claim, the consequence would be that only the power as used would have become appurtenant to the site, and they do not offer us the power as used. They offer us something entirely different. They offer us so-called "non-permanent" power, which, as I shall have occasion to point out in a moment, does not bear any similitude to the actual power that has been used to run the electric light station. So that we have this condition of affairs: A corporation, under the Municipal Lighting Act, offers its tangible property, which as a matter of fact has been operated by water power, but it does not offer that water power at all. It offers a different class of water power, or, rather, it offers water power upon different terms; and it offers this water power upon a rent predetermined by itself, and upon conditions as to use which are fixed by itself.

Can anything be plainer than that such an offer is not an offer under the Municipal Lighting Law? Can anything be plainer than the conclusion that the Company—in so far as the water power is concerned—has not complied with the requirements of the statute as a condition precedent to the creation of any obligation on the part of the City to buy its property?

The Commissioners understand the position of the City very well by this time. We do not want this water power on any terms. Any mill owner in Holyoke can make favorable terms as compared with those offered in this case, with the Holyoke Water Power Company, by private agreement. If we have this plant, we haven't the faintest doubt that we can make favorable terms if we want the water power. But we do not want either power or plant. We can operate the plant by steam, and it isn't of the

slightest use to the City of Holyoke to be burdened with a grant of water power, except on advantageous terms as compared with steam power. We do not want the water power at all; but if the Commissioners have jurisdiction to include that water power in the transfer, then, Mr. Chairman, they must have co-ordinate jurisdiction to value it. The whole scope, spirit, and purpose of this Municipal Lighting Law is to provide for the transfer from one party to the other of certain property and rights, either at an agreed price or at a price to be fixed by judicial valuation. There is no power under the Municipal Lighting Law to compel a city or town to purchase or to hire property at a price which has neither been agreed to by itself or determined judicially by Commissioners. Hence you have no power to value this water power, because, according to the understanding of the law entertained by both parties, it has not been offered for valuation. And there is no agreement of the parties as to its value. We say it isn't worth anything under the terms offered. They say it is worth \$1,500 a year per mill power. Under those circumstances how can you, under any conceivable stretch of the imagination, spell out authority or jurisdiction to compel the City of Holyoke to buy or hire this water power? We say that no such jurisdiction is apparent upon the face of the act. We say that to spell it into the act would be to violate the underlying purposes of the whole law; and that any such decision by the Commissioners would be in violation of the general rule of statutory interpretation which should underlie this whole case,—that nothing is to be read into this act against the City of Holyoke by implication.

Our first proposition being that the Commissioners cannot, against the consent of the Company, revalue the water power, or put any valuation on it, and our second proposition being that the Commissioners cannot include it in the transfer if they have no power to value it, our conclusion is that, not only must the water power be omitted from the transfer, but the water plant as well. For what is the value of a water plant without any power to run it? How can you determine that this water power plant is suitable to run an electric light station if the City hasn't any water power to run it with? It is no use for the Company to

say that we can get power on certain terms. We have the right to say that we will not take the power except upon such terms as we agree to, or as this Commission determines to be reasonable and fair; and the water plant, without any legal right in the city of Holyoke to get water power to run it, is unsuitable for the purposes of its use,—not simply financially unsuitable, but physically unsuitable. Therefore we say that the water plant must be omitted from the transfer.

That brings down the property which you must value, in so far as the electric light plant is concerned, to the electric lighting station itself, and the steam plant used to operate it. And another reason why the water plant must be omitted, if the water power is to go, is that the City would plainly be at a disadvantage in its use as compared with the Company. The City could only get water power, on the assumption that I am now arguing from, at the terms that the Company has dictated. But the Company can get water power to operate this water plant at its own terms, because it owns the water power. Here is another and distinct reason, founded upon the language of the act, why you should exclude the water power and plant. The City would be at a disadvantage in the use of it as compared with the Company, if it is not to have the water power itself either at an agreed rent or at a rent fixed by judicial valuation.

I should like at this point to ask the Commissioners to consider what this water power is in its legal nature, and to note the difference between this case and the case of the taking of a dam or canal or pond, with water power appurtenant.

In this case the dam does not pass and is not offered, nor is the canal or any part of it. Nothing is offered but the power itself, and that is offered under a contract which at the present time has no legal existence, but which is to be created for the purpose; so that in reality all that this "water power" consists of is a contract right, to be created for the purpose, on the part of the lessee to have the Holyoke Water Power Company maintain its dam and canal system and let a certain quantity of water through the wheels, and a co-ordinate obligation on the part of the lessee to

pay a certain rent for the power thus procured. This is not that kind of water power which goes to enhance the value of a dam or land, the fee of which is the subject of transfer; it is nothing but a contract obligation arising and running in future. And I ask the Commissioners to bear that fact in mind in considering some of the legal points to which I am now about to refer.

Such a right is not an easement at the common law. That is well settled. Water power depending for its existence upon the maintenance by another of a dam is not an easement in land. It is at most a capacity of land; that is to say, the opportunity to get it may enhance the value of land as indicating a capacity of use. That is the expression used in the tax cases involving the question of water power of this sort. In other words, it is in its essence not an easement in land, much less land itself, but it is a personal contract obligation, consisting of mutually dependent covenants, on the one part, to maintain a dam and let a certain quantity of water down, and, on the other hand, to pay a certain rent.

The contract not being existent on the day of valuation, it may well be suggested, at least, that this water power is not property at all within the meaning of the statute, and perhaps for that special and additional reason should be excluded by the Commissioners from consideration. We do not press this point with great confidence, because it is unnecessary, and because it does not lie in our own minds as clearly as we would like to have it. But we ask you to consider it; and, if you do, you can hardly escape the conclusion that the kind of water power offered in this particular case is not land or an easement of land, is not property in any ordinary business or legal sense, but is nothing but an offer to create a contract, or an invitation to us to become a party to a contract; and as such we submit, not with absolute confidence, but still for what it may be worth, that it is not within the scope of the Municipal Lighting Law at all.

However this may be, whether you consider that this water power offered is so removed from "property and plant," the only two words that are used in the act, as not to justify you in in-

cluding it at all, or whether you consider that it is within the scope of the Municipal Lighting Law, you must exclude it for the reasons that I have already mentioned,— because it is not offered for valuation, and for the further reason that you cannot make the City of Holyoke indefinitely and perpetually liable on a covenant for rent. As I argued the other day, there is no authority given by this statute to impose perpetual obligations upon either party to this suit. You cannot against the consent of the Holyoke Water Power Company, it seems to me, take their property, or compel them to give us in perpetuity a certain quantity of water. If they do not offer it for valuation, you cannot force them to give it to us at your valuation. In like manner and for the same reasons you cannot force the City of Holyoke to become a party to a lease involving the obligation to pay a perpetual rent. The very most that could be done, as we regard the law, towards incorporating this water power in the transfer is to include it in such a way that the City would get the benefit of it without being bound, while the Company, on the other hand, would not be bound to furnish the water if the City did not pay. That could be done by a common law grant or lease of water power upon condition subsequent, like a deed poll, without mutual covenants of rent. That is to say, if the Holyoke Water Power Company should enter into a contract to furnish power upon condition that the City of Holyoke paid for it a certain rent, with the right to re-enter and cancel the contract in case the City failed to pay the rent, such an instrument as that, in the nature of a deed poll, would be a perfectly good conveyance at the common law, and would entirely protect the rights of the Company while not imposing upon the City of Holyoke any perpetual obligation in the shape of rent.

If, therefore, the Company had offered this water power in this case for valuation by the Commissioners, we should urge that the Commissioners could not bind the City of Holyoke to become a party to a lease involving a perpetual covenant on its part to pay rent, but that the most that the Commissioners could do would be to value the water power to be leased to the City of Holyoke upon a deed poll, with the rent secured by means of conditions subsequent rather than by covenant. •

This is a very important part of this case in the event that for any reason, Mr. Chairman, the Commissioners should conclude that they have power to value the water power offered. I do not see how they can; but if they do, then we desire to press, with all the conviction that we are capable of indicating, our belief in the position that the Commissioners cannot, in the absence of express authority in the act, force the City of Holyoke to become a party to any instrument involving the perpetual payment of rent. No such power is found in the statute, and to read it into the statute by implication would be to violate every principle of the law of statutory interpretation and would not accomplish anything that is necessary to be accomplished in this case; because the rights of the parties can be adequately secured in the manner I suggest by having the lease of water power take the form of a deed upon condition subsequent,—a lease upon a rent reserved by condition rather than by covenant. The Company is protected in that form of deed, because if the rent is not paid, the obligation to furnish water ceases; and the City is protected, because if it does not want to pay, it does not have to. If it does not want the water power, it need not pay for it; and if the City does not pay for it, the Company does not furnish it. The rights of both parties are protected in such an agreement just as well as they would be in a lease with covenants of rent, and such a form of instrument does not violate what we conceive to be the essential rights of the City.

I argued this question in a more general way the other day, and I do not know that it is necessary to say anything further on the subject now, except that we consider it to be perfectly clear that there is no authority to be spelled out of the act to bind the City of Holyoke to pay rent in perpetuity.

Nor can the Commissioners capitalize the rent proposed. There has been no serious attempt in this case to suggest the possibility of capitalization in a case like this. It would be obviously inappropriate as applied to anything but permanent water power, or water power that was guaranteed for a given number of days. This so-called non-permanent power, Mr. Chairman, is not only not permanent, but the number of days is fluctuating.

It is not even guaranteed power ; that is, the number of days of restricted use is not fixed by covenant. And that being the case, the days of restricted use being a fluctuating factor, it being wholly uncertain how many of them there will be, no process of capitalization can be resorted to which would not put the City in the position of having paid for water which it might not get. The non-permanent form of lease is fair enough in this regard : it provides for a rebate when there is no water ; but if you capitalize the rent in advance, you cannot deduct the rebate, and the lessee will pay for what he does not get. Consequently a lease of water power upon anything like the terms of non-permanent power, so called, is incapable of capitalization. No one was ever known to make a cash payment for water power of this indefinite character, and I conceive it impossible that it should seriously occur to the Commissioners as being applicable to this case.

Having stated in the negative, Mr. Chairman, the powers and duties of the Commissioners in this case with respect to the water power offered by the Company, having stated as well as I could, although briefly, what in my judgment the Commissioners could not do, you may well ask the question whether in our contention the Commissioners can do anything with the question of water power. And you may not be prepared to have us suggest that you can.

Mr. BROOKS. That you can or can not ?

Mr. MATTHEWS. That you can. We believe that you can and properly may value the water power in this case for certain limited but useful purposes. You cannot compel the Holyoke Water Power Company to lease this power to us on any terms different from those which it has offered. You cannot force the City of Holyoke to pay anything by way of rent that it does not want to pay for this or any kind of water power. You cannot capitalize the rent in advance. But you can, according to our view of the law, value this power under the section which provides that the Commissioners "may fix the terms and conditions of the transfer." We do not understand that that clause would justify the Commissioners in forcing the Company to sell its water

power on terms that it does not want to, or in forcing upon the City a perpetual rent that it does not want to assume, or in doing anything else which is entirely inconsistent with the general spirit of this law and unnecessary to the administration of it. But we think that those two words, "terms" and "conditions," and the authority granted in the clause comprising them, may well be made use of by the Commissioners to suggest the proper terms for a lease of water power as a condition precedent to the transfer of the water plant.

I have already argued that without water power upon reasonable, fair, and equitable terms, the water plant is not suitable for the purpose of running an electric light station, and that the City in the use of it would be at a disadvantage as compared with the Company, and I have argued that with water power on the terms offered the plant would be wholly unsuitable. But does it not follow that the Commissioners, taking advantage of the clause authorizing them to fix the terms and conditions of the sale, may at least go so far as to say that the City of Holyoke shall be obliged to take the water plant, *provided* the Holyoke Water Power Company makes a proper offer of water power,—*i.e.*, offers a suitable and reasonable lease upon fair terms? If the Commissioners may go as far as that, and we are prepared to concede that they may,—although we are not anxious that they should, because we do not want anything to do with this water power or plant if we can help it,—if the Commissioners can go as far as that, it necessarily follows that they may consider the evidence in the case upon the value of this water power and determine for themselves what would be a proper lease as to rent and terms of use, and then say to the Holyoke Water Power Company, "We will compel the City of Holyoke to take this plant, provided you tender to the City a lease in this form and on these terms," and say to the City of Holyoke, "We will compel you to buy this water plant, provided the Holyoke Water Power Company is willing to guarantee you power upon the terms that we have determined to be reasonable and fair."

Such a course, Mr. Chairman, would not result in any finding by the Commissioners which would be obligatory upon either



party to this controversy in every sense of the word. It would not bind the Holyoke Water Power Company, because, if it did, it would amount to a taking of its property; and it would not bind the City of Holyoke if it did not bind the Holyoke Water Power Company, because there must be mutuality to constitute a judicial valuation. But it would have this great practical merit, that it would furnish the basis, and the only basis that we can conceive of as reasonable or possible, for a transfer of the water plant from the Holyoke Water Power Company to the City. Otherwise we see no escape from the conclusion that you must leave the water plant, with the water power, out of the case.

Notwithstanding the belief that we have entertained from an early stage in this case that the Holyoke Water Power Company did not offer its water power for valuation by the Commissioners, notwithstanding our opinion that as a matter of law the necessary result of that position was that the Commissioners could not value it in any obligatory sense, we have nevertheless gone into the question of the value of this power in the belief that, under the clause that I have now called attention to, the Commissioners would find it within their jurisdiction to put a value upon the water power for the purpose of suggesting a proper lease as a condition precedent to the transfer of the water plant.

The case has not been tried for the City upon the theory that the Commissioners had the right to fix an obligatory figure, a conclusive figure, upon the water power, binding upon both parties, because we have understood that it was not offered for valuation; but we have gone into the value of the water power sufficiently, in our judgment at least, to indicate to the Commissioners what rent they should put upon the power which is offered, and what terms they should prescribe, the rent and terms to be incorporated in a lease which is to be suggested by the Commissioners as a condition precedent to the compulsory purchase by the City of Holyoke of the water plant.

Of course, this argument does not apply to the rest of the electric light plant. The electric lighting station proper and the

steam plant can be treated as a separate entity. They are capable of turning out electricity by themselves, although not very economically; and the water plant and water power are not strictly necessary. The steam plant is used for four or five or six days each year to run the station, and could be used all the time, although we should have to make changes in the machinery in the steam plant. We should certainly rip the electric lighting apparatus entirely out and throw it away. But still the electric and steam plant as a whole, is capable of independent use apart from the water plant for conducting the business of electric lighting in Holyoke. Therefore it is perfectly possible to leave the water power and water plant without interfering with the rights of either party.

Mr. BROOKS. Mr. Matthews, I want to be sure that I understand you; and if you do not object, I would like to ask you the question as to whether, in your statement that the Commissioners can impose a lease upon the City of Holyoke —

Mr. MATTHEWS. It cannot.

Mr. BROOKS. I understood you to say they could —

Mr. MATTHEWS. No.

Mr. BROOKS. — on proper terms.

Mr. MATTHEWS. Oh, no. I didn't say anything of the sort.

Mr. BROOKS. Very well. I misunderstood you.

Mr. MATTHEWS. Possibly it was my fault: I did not make myself clear. I said that the Commissioners have no power, under any conceivable circumstances, to impose a permanent rent upon the City of Holyoke. I suggested that they may have jurisdiction to indicate a proper form of lease, which shall be executed or tendered by the Holyoke Water Power Company as a condition precedent to any obligation on the part of the City to take the water plant. I had not, Mr. Brooks, as far as I had got, stated what should be in that lease.

Mr. BROOKS. It was out of order.

Mr. MATTHEWS. I do not object to Mr. Brooks's anticipation of one point. I was about to go on and describe how the Commissioners should value the water power for the purpose of

determining this tentative or suggestive form of lease; and I might as well say now what I should have said later on if left to myself,—that here, for this purpose, as well as elsewhere, the Commissioners should not impose a perpetual rent upon the City, even in this tentative or suggestive form of lease, but the lease should be drawn, as I suggested, in the form of a covenant to maintain the dam and furnish the water power upon condition subsequent rather than upon a covenant of rent. You will find that the form of deed that we have suggested at the end of part I of the brief is drawn in this shape; that is, it is a common law conveyance upon condition subsequent, giving the Holyoke Water Power Company the right to re-enter at any time, and absolving it from all its obligations if the rent is not paid, but containing no covenant of rent itself; just like a mortgage without a note,—a common form of transaction.

I have got thus far with my argument, Mr. Chairman: that for the purpose of suggesting a suitable lease, such a lease of water power as, if offered by the Holyoke Water Power Company to the City, would make the water plant suitable for the purposes of its use, the Commissioners can value this water power, and thus indirectly impose their valuation upon the parties. The question, then, is how they shall value it.

I have already discussed by anticipation one branch of that inquiry, namely, that they should prescribe the terms or fix the terms of lease in such a manner as will not impose upon the City of Holyoke an obligation to pay rent in the future,—an obligation which the City as a municipal corporation, so far as I understand the law, would have no right to enter into.

The other principles to be borne in mind are briefly these. I will enumerate them first, and then I will consider them in detail. These are the principles upon which we claim the Commissioners must lawfully value the power offered, in case they value it at all; and only, as we claim, for the purpose of suggesting a proper lease as a condition precedent to the transfer of the water plant.

In the first place, the kind and quantity of power should be

that actually used at the plant rather than that offered by the Company, qualified perhaps by this consideration : to the extent that the Company has the legal right to grant such power at the present time.

In the second place, the annual compensation or rent — I shall hereafter use the word "rent" in its broader sense, as including the price reserved by condition subsequent as well as the price reserved in a special covenant of rent — is to be the value of the power granted for the purpose of operating a central lighting station. It should be the value of the power actually used for the purpose for which it is used.

Having found the annual value of the power actually used and reasonably necessary for the operation of this electric light station, the Commissioners then have an annual sum which they may use to represent rent, or interest on a bonus, or both, as they see fit. It is immaterial to the City, or to the Company, so far as I can see, how that annual compensation is apportioned between rent for the power and interest on the bonus. You could charge it all as rent and have no bonus. You could charge it all by way of interest on the bonus and have no rent, subject, of course, to the consideration that I have already mentioned, that you cannot capitalize the rent in advance. Or you could do partly one and partly the other. You could say that part of this annual sum or value of the water power should be considered as rent and part of it should be regarded as interest on the bonus.

Then in getting at the annual value of this power, actual sales of water power, so far as they may be found in the evidence, should take precedence in your deliberations over calculations, however ingenious and however apparently conclusive, by experts, however great in their reputation.

In the next place, in the absence of conclusive evidence derived from actual sales — and I may say, in passing, that there have been no actual sales of water power on the conditions, terms, under which the plant has been operated — in the absence of such evidence, recourse may properly be had to arithmetical computations based upon the cost of producing an equivalent amount of power by steam.

Finally, we contend that particular weight should be given in this case to the Company's admission, made under oath, as to the annual value of the power used to operate the electric light plant.

Going back and taking those matters up in detail, or at least in such detail as I think necessary in this argument, the first point that I make is that in endeavoring to frame this tentative or conditional lease — or I may say, in passing, if you have occasion for any other reason to value the water power; and all that I now say applies to any valuation that you may make, whether on our theory or the Company's theory or some theory of your own, as to the water power offered in this case — the first consideration to be borne in mind is that the kind and quantity of power should be that actually used at the plant.

There is no non-permanent power used in connection with the electric light station; none whatever. That expression, as many others that might be used, relates simply to the terms of a contract, and there is no contract in this case. Mr. Goulding himself in Vol. IX. states the matter as well as I can. The non-permanent power is created by the lease. It is simply a short and convenient expression adopted by the Holyoke Water Power Company to designate one of the many forms which it has of leasing water power, and until a lease is created upon those terms, there is no non-permanent power in the case.

So much from the legal standpoint. It is water power simply that is being used there. It is not under lease at the present time. Therefore it hasn't any legal existence or status as "non-permanent" or as any other kind of power.

As to its mechanical designation, it is surplus power, using that word in its ordinary hydraulic sense. That was freely admitted by Mr. Sickman, and is obviously so. The water power that is used, and all the water power that can be used at this plant, is surplus power. That is, it is the excess yield of the stream above the guaranteed permanent dry year yield; for that has all been leased. It is abundantly proved in the evidence that all the permanent power on the first level canal was leased years

and years ago. Mr. Sickman, Mr. Gross, and everybody else say so. The last lease of permanent power on the first level canal was given some twenty years ago, and there has been no permanent power available on the first level canal since, unless it can be carved out of the 17 mill powers that the Company itself has reserved in all its leases of non-permanent power.

There may be some room for doubt or for speculation in the minds of the Commissioners whether, as a matter of fact, the Holyoke Water Power Company has not been drawing on these 17 mill powers to run this electric light station. They have been using the power right along without reference to restricted days or any other limitations to which the non-permanent power is subject, and they may have been drawing upon the 17 permanent mill power which they have the right to use on the first level canal and which they do not use, because the Cabot Street mill is mostly empty. But however that be, they do not offer us any part of those 17 mill powers. What they offer us is surplus power, in the hydraulic sense, conveyed or leased to us under such terms and conditions as they have been in the habit of denominating "non-permanent," and which I will designate by the same convenient expression.

Some suggestion was made at some one stage of the case, or by some of the expert witnesses for the Company, that there had been some appropriation or assignment of water power to this particular lot of land, but that was shown conclusively by Mr. Sickman and others not to have been the case. You cannot appropriate water power except by some legal instrument. There has been no legal appropriation in any sense, either of permanent, non-permanent, or surplus power, for use at this electric light plant. That fact was practically admitted by both Mr. Gross and Mr. Sickman before they left the witness stand. The most that could possibly be claimed by the Holyoke Water Power Company in the way of an appropriation of water power at this plant would be under the rule laid down by a majority of our Court, in the *Whittenton Mills* case (164 Mass.), where a deed of land in connection with which water power had been used was held to pass the water power as appurtenant.

The Court applied that rule, in derogation, perhaps, of what had previously been understood to be the common law, by a majority of only one, the Court standing 4 to 3; and if that case is to be regarded as permanently fixing the law of Massachusetts, all it means is that the power as actually used at a given plant may as against the grantor become annexed to the land and pass by a conveyance between the parties without mention of the water power. But the Company does not offer us the power actually used at this plant. They offer us 16 "non-permanent" mill powers; they offer us power, upon certain definite, prescribed terms, which bear no relation to the manner in which this plant is actually being run. It is a different kind of power from that actually used, and the quantity is six or seven times as great, or more. The plant used an average, for instance, of  $3\frac{1}{3}$  mill powers per day. According to the majority of the Court in the *Whittenton Mills* case, that was the amount of water power that would pass. The Company want us to take 16 mill power a day, five times as much, and to pay for it as though we used it 24 hours in a day. There is no room in this case to work in an appropriation or an assignment of water power as appurtenant to this land, except you take exactly the amount used and adopt the exact manner of its use. And I go one step further: if that doctrine is to be invoked, I should say that we ought to have the benefit of the rent or the value as sworn to by the officers of the Company in their annual returns to the Gas Commissioners; namely, \$4,500 a year.

(Adjourned to Friday, Dec. 27, 1901, at 10 A.M.)

## EIGHTY-NINTH HEARING.

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Boston, Friday, Dec. 27, 1901.

The Commissioners met at the Court House at 10 A.M.

### Mr. MATTHEWS'S ARGUMENT, *resumed.*

Mr. MATTHEWS. Mr. Chairman, I have looked at the case suggested, *Braintree Water Supply Company v. Braintree*, 146 Mass. 482, and I do not find that the decision throws any light upon either question that was under discussion yesterday, namely, as to what the date of valuation should be or upon the question of interest.

Mr. COTTER. The title to the property passed to the town as of the date the town voted.

Mr. MATTHEWS. As I read the decision, Mr. Cotter, the final vote of the town fixed the rights of the parties, as if they had entered into a contract, and I rather assumed from that that the valuation was to take place as of that date, but I don't find anything in the report of the case to indicate that was so.

Mr. COTTER. You recall that Judge Knowlton used this language: that the Water Company obtained its property conditionally, that it was offering it in the market, and the moment the vote was consummated, the title passed.

Mr. MATTHEWS. I don't remember that the Court said the title passed. I may be in error, but I read the opinion with that suggestion in mind, and I didn't find it.

Mr. BROOKS. They took possession, didn't they?

Mr. COTTER. It says in effect, however, that the title had passed, that the Water Company obtained its title conditionally, and said, What will you give us for it? And the moment the town says, We will give you so much, the title was effective. Under the local water act,—that may not help us here, but it is pretty



generally held that when the town voted to purchase, the title passed,—the Commissioners were entitled to take possession, and the town charged with interest from that date.

Mr. MATTHEWS. I think so. I think that is the usual rule. That is what I have understood to be the effect of our water charters. But here we have a case where they don't have possession until the actual conveyance or payment, and we think that the date of valuation must be the date of the Company's offer, and that interest should follow possession. The party entitled to possession and enjoyment of the property is entitled to the rents and profits, if there are any; and the party not in possession, but to come into possession later, does not pay interest in the mean time.

Of course this construction of the law, or any construction of the law, I take it, would leave it open to the Company to continue the operation of the plant or not, as it saw fit. Up to the present time, so far as the evidence goes, the plant is in operation by the Company, although we claim it has been allowed to deteriorate physically. If at any time before the transfer of the plant the Company should see fit to cease the operation of it, the only result, perhaps, would be to render it impossible for the Company to collect its value as a going concern. If it isn't going at the day of the transfer, would the Company, we suggest, be entitled to a valuation upon that basis, and to the special value that the plant would have as a connected going plant? This leads me to suggest that possibly the Commissioners may desire to guard against that contingency in their report.

Before resuming my argument at the point at which I broke off last evening, I would like to suggest one illustration which may have occurred to the Commissioners, as to the inapplicability of the test of reproductive cost, an illustration based upon one of the greatest financial undertakings that the world has ever seen. We know, of course, that the owners of the Panama Canal are trying to unload that property upon the United States government. Now there is a property which may have cost two or three hundred millions of dollars; its reproductive cost

would be approximately equal to the original cost, somewhat less, but not perhaps materially less. But its present value seems to be somewhere in the vicinity of only forty millions of dollars, as reported by the United States Commission. There is the most conspicuous illustration that I can think of, of the difference between present value and reproductive cost.

Resuming my argument where I dropped it last night —

The CHAIRMAN. What page, Mr. Matthews?

Mr. MATTHEWS. I am not following the brief very closely. I am on page 172.

The CHAIRMAN. Oh, all right.

Mr. MATTHEWS. I was developing to the Commissioners the principles of valuation which it seemed to us should be applied by them in case for any reason they see fit to value the water power that is involved in this case, either for the conditional purpose that we ourselves suggest or for any other purpose. Whether the Commissioners conclude that they have jurisdiction to value this water power and to force the City to take it at such valuation, thus rejecting the contention of both parties to this controversy in that regard, or whether they see fit to adopt our suggestion and put a value upon this water power to be used as the basis for a tender by the Company as a condition precedent to the acquisition by the City of the water plant, or whether the Commissioners, for any other reason that I have not suggested, see fit to value the water power in this case, it must, we conclude, be valued according to the terms of the Municipal Lighting Act; that is, upon the same basis as is prescribed by Section 12 of the Municipal Lighting Act for the valuation of the property which is to be transferred from the Company to the City.

The first proposition that I laid down for a valuation of the water power in this case, in conformity with this suggestion, was that the thing itself that was actually used at the plant must be valued; that is, you must value such water power as was ~~as~~ a matter of fact used for the operation of the plant, and not such other water power or water power upon such other terms as the

Company may see fit to tender. The statute says that the City shall acquire by transfer — acquire by purchase property used and suitable for, “used and suitable for.” There is no obligation on the party of the City to acquire water power any more than any other kind of property that is not used for the operation of this plant. The first question, therefore, that the Commissioners must determine is the nature, quantity, and terms upon which water power is actually used at the electric light plant; and they will at once conclude, as I argued yesterday, that there is no question of non-permanent power, there is no question of surplus power, there is no question of anything but water which is drawn through the wheels of the electric light station, to such and such an amount, at such and such times during each and every day of the year. The uncontradicted evidence in the case is that that amount of power varies from about 1 mill power or a little more in the forenoon in summer to 8 mill powers at the peak of the load in the winter evenings, and that the average is about  $3\frac{1}{3}$  mill powers on the basis of the 339 days during which the plant is operated by water power.

Having found the kind of water power that was actually used at the plant, it should be valued at its value for the purpose of operating an electric lighting station, because the statute imposes upon you the duty of valuing all property that is to be valued by you at all at its value for the purposes of its use; and in this case the purpose for which the water power in question is used, has been used by the Company, and will be used by the City, is to operate a central lighting station. Having determined, then, the amount of power, or, more strictly speaking, the amount of water which from day to day is required to operate this plant, and having fixed its annual value for the purpose of its use, that is, to operate an electric lighting station, it then becomes a matter of indifference, within certain limits at least, whether you treat that annual value as wholly rent, as wholly interest on the amount paid for the privilege, or as partly interest and partly rent.

I then went on to suggest that, in determining the value of

this water power for the purpose of its use, a test of actual sales, if there were any, would be the most conclusive evidence and assistance that you could ask for. Unfortunately, however, there is very little evidence in the case as to the market, selling price or value of water power to operate an electric lighting station. We shall show you, however, that there is some evidence in the case upon that point, and that actual sales or leases of water power to operate a central lighting station in Massachusetts have been put in evidence in this case, particularly in the instance of the United Electric Light Company of Springfield. And we ask you to give to that instance the weight which is fairly due to it under the rule of law which I endeavored to emphasize yesterday, that the test of actual sales — actual leases in this case — is superior to any valuation reached by calculation or dependent on expert opinion. In the case of the United Electric Light Company the Commissioners will recollect that the water power is paid for as measured, — that is, according to the actual quantity which passes through the wheels of the electric light plant, — and that the amount paid, reduced to Holyoke conditions, is less than \$4,500 per annum for 8 mill powers. If that instance should seem inconclusive, the Commissioners may seek the assistance of calculations, computations, or expert opinion as to the value of the water power involved in this case.

These opinions, computations, and calculations, if used at all by the Commissioners in this case, must be constructed properly. They must be founded upon a correct theory for the valuation of water power, and they must be confined also to such computations or opinions as result in the value of the water power for the purpose of running an electric light station. You must eliminate and disregard all calculations or computations or opinion evidence tending to show the value at large of water power, — this water power or any other water power offered in Holyoke. The value of water power to operate a paper mill or for any other larger use, for any manufactory that would run on a 24-hour load throughout the year, is immaterial, because you are confined here, as throughout this case, to the value of the property — power in this instance — for the purposes of its use; that is, to run a central lighting station.

In the next place, the valuation of water power, whether for any purpose or for any particular purpose, must be based upon a comparison with the cost of creating an equivalent amount of power by steam in a modern standard steam plant; that is, under what Mr. Allen designated as normal commercial conditions.

That is a most important rule of valuation. It is founded not only in common sense, it is not only the rule always applied, so far as I know, in water power cases, but it has, as it so happens, the sanction of the courts in a number of well-considered decisions. Four of them are cited on page 177 of our brief, and I will call, particularly, the attention of the Commissioners to the New Jersey cases: *Butler Hard Rubber Co. v. Newark*, and *Sparks Mfg. Co. v. Newton*.

One of them, I think the latter, contains the most elaborate and interesting discussion of the proper way to value water power, which in that particular case, as here, was non-permanent or surplus, that is to be found anywhere in the books.

This elementary proposition, founded not only on common sense, but upon what we all know to be the practice in water power cases, and upon the decisions that you must get at the value of water power by contrasting the cost to procure an equivalent amount of power by steam in a modern standard steam plant of current commercial design, has been systematically ignored by the witnesses for the Company in this case.

They began their valuations of water power by contrasting or comparing the cost to operate this particular water plant with the cost to produce an equivalent amount of power by steam at the particular steam plant owned by this corporation. Now that steam plant is a mere auxiliary steam plant, unsuited for the profitable operation of a central lighting station by itself; not, of course, incapable of being used for that purpose, but incapable of being used economically and profitably for that purpose without many changes in the type of plant, such as compounding the engines and running them condensing, and introducing a smaller engine to carry the load during the hours of light consumption.

This plant was intended to be operated by water power, and

as a matter of fact has been operated by water power, with the exception of periods aggregating only five or six days annually. During those five or six days the Company could well afford to run the plant by means of an ordinary, simple, and inexpensive auxiliary steam plant. But to base the value of its water power upon the cost of operating the entire plant all the year round by means of this auxiliary plant with its simple, uncompounded engines, run non-condensing, would result in an extravagant and fictitious value for the water power; because if the cost for water power is not to exceed the cost by steam, then the less efficient the steam plant, the higher will be the valuation for the water power.

You will find that this was the theory upon which the witnesses for the Company in their case in chief endeavored to work out a value for this water power of \$1,500 per annum per mill power. They could have got a higher value still if they had had a still less efficient steam plant to work from. The worse the steam plant, on this theory, the more valuable the water power. That is an obvious and conclusive reason against the validity of this method of valuation.

I might illustrate still further, although that would seem to be sufficient. If you are to base the value of water power, not upon what it ought to cost to produce power by steam under normal commercial conditions, but upon what it would cost to produce power by steam at some particular plant, then not only does the value of your water power vary in inverse proportion to the efficiency of the steam plant that you select for the purpose, but, if you have many steam plants, you have many valuations for one and the same thing.

Suppose there were a dozen mills along the first level canal operating auxiliary steam plants, or complete steam plants, as you please. The value of the water power must be the same for all. There ought to be no difference — there cannot be any difference — in the value of water power upon fixed terms and conditions all along the first level canal. But upon this theory, which the Company has evolved to meet the exigencies of their case, the value of that water power would be different according to

the steam plant that you selected, and you would get a different valuation for the same thing by basing the computation upon the cost at these different steam plants. The more steam plants you had, the more valuations you would reach; and none of them, Mr. Chairman, would throw any real light upon the value of that water power, unless the particular steam plant used was a standard modern plant.

That is one fundamental error which the Commissioners, of course, will avoid. They will do as other commissioners have always done in similar cases. They will endeavor to ascertain the value of this water power by considering what it would cost to create an equivalent amount of power by steam produced in a plant of normal commercial type,—that is, with compound condensing engines.

But that is not the only error which the witnesses for the Company deliberately adopted in order to magnify the value of the water power in this case, and to bring it from the \$600 or less which had been actually paid in Holyoke for water power upon a non-permanent basis up to the \$1,500 which they were asked by the Company in this case to find. They not only commit the error of basing the value of water power upon the cost to produce steam at an inadequate plant, a plant which they admit themselves to be expensive in operation, but they ignore completely the fact that, if the plant is to be operated by water power, there must be a double investment. In the comparisons which the Company made, when putting in its case in chief, the fixed charges, that is, the cost to carry the investment, were ignored upon both sides of the calculation, and that, of course, is the same thing as assuming that they would amount to the same in each case; whereas, as anybody can see upon a moment's reflection, the fixed charges, that is, the annual cost to carry the investment for interest, taxes, and depreciation, are much more with a water plant which requires an auxiliary steam plant than for a plant which is operated by steam power alone.

It is mainly by virtue of those two fallacious assumptions or processes that the witnesses for the Company were able to bring themselves to testify to a value of \$1,500 per mill power for the

water power offered in this case ; but they committed other errors and absurdities. They assumed an excessive cost for coal, and they introduced other minor irregularities into their calculations ; but the essential vice of their original computations was the double error that I suggest : first, in attempting to get the value of water power by a comparison of what it would cost to produce an equivalent amount of power in a particular plant, which they admit was an expensive one to operate ; and, secondly, by assuming that the annual cost to carry the investment would be the same in either case, whereas as a matter of fact it must be more for a plant operated by water power which is not permanent in its character and requires an additional investment for an auxiliary steam plant.

Even these errors were not sufficient to satisfy the greed of the Company, or to convince its experts that they were justified in assuming a value of \$1,500 per mill power for water power upon the non-permanent basis, and some of them resort to even greater intellectual eccentricities than those I have suggested. For instance, Mr. Foster and Mr. Whitham invented the ingenious scheme of fixing the value of water power upon a comparison with the cost to create an equivalent amount of power by a steam plant operated by engines run condensing, and hiring water at the City water supply rates for the purpose,—a practice which, of course, no owner of any steam plant could ever afford to adopt. The witnesses themselves say that no plant would be run in that way ; but of course, if you adopt that theory, you can very easily get a very high valuation for water power.

It remained for Mr. Whitham to invent a still more ingenious way to magnify the value of the water power involved in this case. He worked out a valuation based upon what it would cost the City of Holyoke as a municipal corporation, burdened with labor statutes, and with a certain fixed price for labor higher than commercial rates, to operate this particular steam plant. That, of course, is a consideration which has not anything to do with the value of water power in this case.

I might continue, Mr. Chairman, but I will leave it for my associate to go into this matter more fully, showing how the



witnesses for the Company floundered around from proposition to proposition, every one of them founded upon fallacies similar to these which I have indicated. Eventually, however, the Water Power Company's witnesses came down, in theory at least and on the face of it, to computations as to the value of water power based, as they should have been at the outset, upon the cost to procure an equivalent amount of power by a standard steam plant. Those calculations will be found in the evidence for the Company in rebuttal. They are erroneous, not because of the adoption of the particular fallacies that I pointed out, because those were wisely discarded, but for other reasons; as, for instance, in assuming that the plant would be operated upon a continuous 24-hour load throughout the year, and in other particulars which will be referred to by Mr. Green.

I will pass from the argument that in valuing the water power you must consider the cost to produce an equivalent amount of power in a standard commercial steam plant, such a steam plant as would be introduced in ordinary commercial practice, with a quotation from the case in 57 New Jersey Equity, in which the Court says, "Of course it"—that is, the water power—

The CHAIRMAN. What page?

Mr. MATTHEWS. 181; at the top—"cannot be worth more than the cost of producing steam power at that point, and that cost must not be fixed by the cost of making steam in a mere supplemental steam power plant."

So in the *Colorado* case cited. "It was the reasonable, and not the actual cost of steam power at any particular plant, which was held admissible in the valuation of water power." And the Court in that case excluded from consideration valuations which were based upon the actual cost of producing steam power at some particular existing plant.

The last principle which I invoke for your assistance, in fixing the value of water power in this case, is a reliance upon the sworn returns of the Company itself, which coincide so closely with the value of the water power for the purposes of its

use as figured out by the experts for the City as to amount to a confirmation of their results of the strongest and most conclusive character. For some years past the Holyoke Water Power Company has returned to the Gas Commission the annual cost or value of the water power to operate this plant at \$4,500. Now, Mr. Chairman, it is for the interest of every corporation making returns to the Board of Gas and Electric Light Commissioners to put its operating expense at least as high as it fairly is, because the Company is liable to be brought before the Commission upon an application for a reduction in price. The Commissioners are largely guided by the actual cost of manufacturing electricity or gas, as the case may be, and take the returns made to the Company as *prima facie* evidence of the actual expense. Therefore it is more for the interest of the Company to magnify the annual cost than it is to minimize it. At any rate, there is no opportunity for the suspicion that a company would voluntarily minimize its cost of operation.

For these reasons, the repeated returns of the Holyoke Water Power Company to the Gas Commission of \$4,500 as the annual cost or value of the water power used to operate its electric light plant would, in the absence of any evidence from us, be considered of the highest significance. And when you find that that sum is almost exactly what our witnesses say is the fair market value of this water power to run an electric light plant, namely, \$1,500 per mill power for an average of  $3\frac{1}{3}$  mill power, you have the strongest possible corroboration from the lips of the Company itself of the correctness of the computations made by Mr. Main and Mr. Manning, Mr. Warner, Dr. Bell, and Mr. Blood as to the value of the water power involved in this case for the purposes of its use.

We contend that if this water power is to be valued by you at all, for any purpose, it must be valued upon the lines that I have indicated; and taking into account the rules of law applicable to the case as outlined in our brief and the evidence, whether based upon mathematical computations or upon the sworn returns of the Company, you cannot avoid the conclusion that the fair market value of the water power offered in this case is not more

than \$1,500 per annum per mill power, paid for as measured, or an annual rent of somewhere in the vicinity of \$4,500. It will be a little more than \$4,500 on our basis, because there will be water power for 26 Sundays in the year, or at least for half of each and every Sunday; and, as worked out in part 2 of our brief, the actual value is somewhere in the vicinity of \$5,000 per annum.

There is additional evidence in the case pointing strongly to a valuation not exceeding \$1,500 per mill power for water as it passes through the wheels by measure in the amount paid by the United Electric Light Company of Springfield, which, it appears, is only \$8,100 per annum for a product or output, electrically considered, three or four times as great as that which is turned out by the Holyoke Water Power Company.

So much, Mr. Chairman, for the theories that we entertain as to the correct method of valuing the water power involved in this case. We do not think that it is a difficult problem. We think it is, relatively speaking, very simple; and that you only have to apply these processes that have been used in every other water power case that ever was tried until this one. You find the cost, properly computed, of producing the amount of power that is actually used at this plant, say an average of  $3\frac{1}{2}$  mill power per day, and you will find it impossible to assign a higher value to the water power that is actually used at the electric light station than a gross annual sum of something like \$5,000, which would be equivalent, if you put it all into the form of rent upon the terms according to which surplus is ordinarily sold in Holyoke, to \$1,500 per annum per mill power for the water used as measured by the gate readings.

Now I ask you to pass to an alternative discussion. I ask you to consider now what should be the mode of valuation in case we are mistaken in the principles of law which we have endeavored to impress upon the Commissioners, and in case it is your duty under this act to value this water power as if it were "non-permanent"; that is to say, as if it must be taken by the City upon the so-called non-permanent basis. We ask you to

assume for the moment that you must value the water power in this case, but that you cannot value it upon the theories that we suggest; that you are not at liberty to take simply the amount of power that is used at this station and find the value of that amount of water for the purposes of running the station, but that you must assign some value to water power upon the non-permanent basis, so called, that you must take it at its highest value for any purpose, and that you are at liberty to assume that all the lessees of non-permanent power stand upon a parity with respect to the days of restricted use.

I have endeavored to frame this alternative suggestion, which you will find as item 9 in italics on page 182, in such a manner as to represent as fairly as I can what we understand to be the claim of the Holyoke Water Power Company in case the Commissioners have jurisdiction to value the power at all; that is, that it must be taken as "non-permanent" power, or as power on the "non-permanent" basis, using that expression as it is found in the leases of the Company; that it must be taken at its highest value for any purpose, regardless of its value for the purposes of running an electric light station; and that it is to be valued as if all the lessees of non-permanent power stood upon a parity. As I understand the claim of the Company, there is such a thing as non-permanent power as a class of water power in Holyoke, and it may become your duty to put a value upon that, wholly irrespective of the needs of the electric lighting plant in this particular case.

I will ask the Commissioners to consider the principles which should govern the Commissioners in fixing a value at large, if I may use the expression, for water power upon the non-permanent basis.

In the first place, here, as in the case of everything to be valued under the Municipal Lighting Act, it is the market, that is, the selling price, of this water power that is to be valued,—what it would actually sell for in the market; not what it ought to be worth in excess of what it would sell for, but what it is worth measured by what it would sell for.

In the next place, the amount of power cannot be taken from

the offer of the Company, whether 8, 16, or any other definite number of mill powers. If you are seeking to ascertain the market value of water power upon the non-permanent basis offered with this site, the amount of power must be limited to that which is commercially marketable at the site in question. If, for instance, they should offer 1,000 mill power on the non-permanent basis,—as they could, because they can sell a million mill power a minute on the non-permanent basis, not taking any obligations or coming under any guarantee as to permanency,—it would obviously be absurd to assign a value for any such extravagant amount of power for use upon a limited area of land. That extreme case illustrates the principle. You must in every case where you are valuing water power upon any basis consider how much water power would be commercially marketable with the area in question; otherwise you do not reach the market or selling value of water power upon as appurtenant to the lot of land in question. No one, of course, will hire water power in Holyoke, whether it is permanent or non-permanent, to a greater extent than could be commercially utilized upon the land which goes with the power. I conclude, therefore, that if the water power is to be taken at its highest value for any purpose, and upon the assumption that all the lessees of this class of power are to be treated alike with respect to the days of restricted use, the amount of power must be strictly limited to that which could probably be sold or leased in fact in connection with or as appurtenant to this particular lot of land.

Without going into the evidence on that point, which will be referred to at greater length by my brother Green, I will call attention to the fact that the witnesses for the Company systematically ignore this consideration, and put a value upon 16 or 8 non-permanent mill powers as if there were a sufficient amount of land to induce some one operating in the open market to hire 16 or 8 non-permanent mill powers, as the case might be. They assume the marketability, so to speak, of the water power offered in this case. And they ignore the possibility that nobody could commercially utilize more than 4 or 5 mill power upon an area of land which, for free building purposes, consists of only 28,000 square feet.

When confronted with the uncontrolled evidence in this case that water power is not, as a matter of fact, sold in the city of Holyoke, and has never been sold on any such terms and conditions; when confronted with the evidence which indicates an average area per mill power of 16,000 square feet, and in no case less than 7,386 square feet per mill power,—that being the smallest area of land ever sold by the Holyoke Water Power Company per mill power,—they attempted to meet the evidence, but not by denying the fact, Mr. Chairman, because that could not be denied. The Company itself produced, at our request, a list which you will find printed in Vol. IX. p. 68, Exhibit 129, of all the mill powers leased and the area of every mill site; and it was impossible for them to deny the fact that in no case had the Holyoke Water Power Company ever sold or leased power to anybody, in the whole history of its career in Holyoke, in excess of one mill power for every 7,500 feet of land, and that the average was about 16,000 square feet per mill power. It was impossible to meet that evidence, and therefore the Company was driven, in rebuttal, to suggest that it was theoretically possible to utilize 28,000 or 41,000 square feet of land for a mill or manufactory which could use 16 mill powers. We concede, of course, the theoretical possibility of such a structure. We concede that it would be theoretically possible to utilize 16 mill power for the manufacture of calcium carbide, or in any of the other electro-chemical industries. It would be possible to use much more than 16 mill powers for those purposes upon 41,000 square feet of land; but nobody would do it in Holyoke, and nobody would buy land for that purpose. There is no market in Holyoke for the purchase of land and water power for use in electro-chemical industries, because, as appears from the evidence, those industries are confined practically to Niagara, where water power is leased at a smaller rate than anywhere else in the world, I believe, and cannot be found anywhere else. Therefore this theoretical possibility may be entirely ignored, for the question for the Commissioners to consider is, not what is possible, but what the land would sell for; what any one would buy the water power for; how much of it he would buy; and how much he would pay

for it. You are confined, with respect to the possible uses to which the land would be put, to the market practice in Holyoke. Your investigation of this question must be confined to the uses for which land and water power in Holyoke are likely to be needed; that is, to purposes in respect of which there is a present demand or market in that city, and it is entirely aside from the case to speculate as to what a man might do on 28,000 square feet of land.

It was finally suggested in rebuttal, as a desperate resort, that a paper mill could be erected which would utilize 16 mill powers upon this site, and Mr. Tower was put on as a witness to explain the construction of such a mill. His mill was undoubtedly one which could be operated mechanically. We don't dispute that. And he constructed it economically. We think his testimony extremely valuable, as corroborating the estimates and opinions of our witnesses, as to quantities and the prices; because, as Mr. Green will have occasion to point out to you later, Mr. Tower confirms the evidence offered for the City in this case as to what brick ought to cost in the wall in Holyoke, and as to the proper amount to allow for excavation, for foundation purposes, for mill construction in that city. So that, so far as structural valuations go, Mr. Tower's evidence was practically corroborative of the evidence offered by the City, and we ask you to pay the most careful attention to his estimates of quantities and prices.

But Mr. Tower was a frank man, and he admitted that no such mill had ever been erected for the paper industry in that city, and didn't know that any such mill ever would be; and that disposes entirely of his suggestion, so far as the market ability of 16 mill powers of water in Holyoke for a paper mill goes. For when you consider the uses of water power in connection with paper mills or electro-chemical industries, the question always is how much power could be actually leased for such a purpose. And the evidence in this case is overwhelming and uncontradicted that the owners of paper mills do not hire 16 mill powers with 41,000 square feet of land, much less with 28,000 square feet; but what they do is to buy land and water power bearing such a ratio and relation to each other as amounts, on the

average to 16,000 square feet for every mill power. And in no case in the history of the Holyoke Water Power Company has a paper mill been erected to be operated by water power having less than 7,300 square feet per mill power.

Here again, in conformity with the rule of law laid down in the case of the *National Bank of Commerce v. New Bedford*, your decision is concluded by the actual facts, indicating the market price, whether it relates to value or to the actual amount of power. You have a long list of actual instances of sales of similar power and land, and those instances are controlling. They are not to be met by calculations showing the theoretical possibilities of situation, having regard to this question of the relative amount of power, any more than they are with reference to the rent that is to be paid.

Bearing in mind that the price is to be restricted to market or selling price, and that the amount is to be restricted to the amount that is marketable with this area of land, we come then to the determination of the annual value of the power. And here I invoke again the rule of law laid down in *National Bank of Commerce v. New Bedford*, that actual sales are controlling, and that the evidence based upon actual sales, when sufficient in number, is not to be met or overcome by any calculations or computations of any sort.

It will be the duty of Mr. Green to point out to you that the evidence upon the question of actual sales of water power on the non-permanent basis is consistent and conclusive; and that the market value based upon actual rents for water upon that basis is not over \$600 per mill power per annum. I say particularly "is not over," because we shall argue that, at the present time, even that sum is too high to assign as the market value of water power upon the non-permanent basis in Holyoke, for reasons which I shall explain later. But all I ask you to do so far in my argument is to turn your attention to the eleven cases of water power that has been leased by the Holyoke Water Power Company upon the non-permanent basis, beginning with 1882 and ending with 1897, and you will find that \$600 per mill power



per annum is the maximum that you can award as the value of non-permanent power, in reliance upon and having regard to the actual sales or leases of water power that have been made upon that basis.

Then, of course, after having reached a value for water power upon the non-permanent basis of something not exceeding \$600, to that sum you must add something for the extra value of the water power contained in the Company's amended offer. They offer us water power not only upon the non-permanent basis, but certain other privileges under certain conditions, restrictions, and limitations as to Sundays and so forth, which may or may not be of value; but whatever value those extra privileges have must be added to what you find to be the annual market value of water power upon the non-permanent basis.

These, it seems to us, are the principles which the Commissioners should bear in mind, if they must fix a value for the water power offered in this case at its highest value for any purpose, and upon the theory that all lessees of non-permanent power stand upon a parity with regard to days of restricted use.

The question of a parity of use cannot, however, be lawfully assumed. And that is the reason why, in valuing water power upon the non-permanent basis,—that is, in valuing so much power as is offered to the City by the Company for use upon the non-permanent basis,—it is not competent in law to assume, as the Company's witnesses uniformly do, a parity of use, or a parity of right with respect to days of restricted use. Any valuation based upon actual sales or leases made apparently upon the assumption of a parity of use, and running up to somewhere between five and six hundred dollars per mill power per annum, is subject to a further reduction by you before you can reach its present market value, because in law that each lessee stands according to the date of his lease, both with reference to the Holyoke Water Power Company and with reference to prior and subsequent lessees. That is to say, if you ignore in fact, or must ignore in law, the assumption that all lessees of non-permanent stand upon a parity; if you must construe the leases as they are written, and hold that every lessee is postponed in point of right and use to

all prior lessees of non-permanent power,— then you must reduce the market value of water power in Holyoke for general purposes upon the non-permanent basis by such a sum as will represent the value of this consideration.

The witnesses for the Company all assume that there is a parity of use, making that assumption as matter of law by request of counsel, or as matter of fact upon statements made to them by Mr. Waters.

Let us consider first the facts. The facts of the case, Mr. Chairman, as we understand them to be admitted without substantial controversy with respect to this question of the parity of use, are to be found on pages 190 to 193. They are given with great care, and we have used only those facts which we conceive to be admitted. That is, we have based every statement upon the testimony of the witnesses for the Company.

The first fact is that all the permanent power on the first level canal has long since been disposed of. That, of course, will not be disputed. The last lease of permanent power on the first level canal was made in 1886, the last on the second level canal was made in 1886, and the last on the third level canal was made at a somewhat later period. There have been eleven leases of water power upon the non-permanent basis, beginning with the first to the George R. Dickinson Mill in 1882. Those leases will be found enumerated in tabular form on page 190.

The next fact is that, if the City is to take a lease of non-permanent power now, it would not on the face of things compete with the lessees of non-permanent power except with those drawing water from the first level canal. But do not place too much reliance on that concession, because it is not literally true.

The CHAIRMAN. State it again.

Mr. MATTHEWS. My suggestion, in the first place, is that with these eleven lessees, on the face of things, the City of Holyoke, if it took a lease of non-permanent power now, would not come in competition except as to those who draw water from the first level canal; because the electric light plant is on the first level canal. But I said that that concession is not to be taken as worth very much, because the Company must look after its

lessees on the second and third level canals, must let water down from one canal to the other, must "balance its canals," to quote from Mr. Sickman and Mr. Gross; and the rights of the prior lessees, if they have any right at all superior to that of any new lessee, would entitle the lessees of non-permanent power on the second and third level canals to some interest superior to that of any new lessee in the water of the first level canal. The main competition, however, for a new lessee of non-permanent power on the first level canal would be with the three mills which, according to this table, have now the right to draw water power from that canal upon the non-permanent basis.

Now let us consider what the actual position of a new lessee would be with respect to the days of restricted use. The Company tried its case upon the theory that all the lessees of non-permanent power on the first level canal had been restricted substantially alike, and that was so up to the year 1899. But it was not so during the year 1899, which was a dry year, and it was not so during the year 1900, which was another dry year, although not so bad as 1899. In 1899 the restricted days for the Parsons No. 2 were only 49, while for the Linden they were nearly 76. And Mr. Sickman very frankly explains the reason. He says, as quoted upon page 191 of our brief, that there was not enough water to supply all these mills, and that the Parsons No. 2, which had the earliest lease, was therefore preferred to the Linden and Dickinson Mills, which had leases of a later date. By consent of the other mills, the Dickinson Mill, which had the most recent lease of all, was allowed certain special privileges and got nearly as much water as the Parsons; but Mr. Sickman distinctly states that that was done by force of a special agreement between those various mills, and he adds that any new lessee subsequent in point of right to these three mills would have had in that year less water than any of them, and would have been subject to more than 75 days of restricted use. Mr. Gross, although he states that his understanding is that all the lessees of non-permanent power were treated alike, admits that that was not so during the two years in question, the dry years 1899 and 1900.

The fact, with regard to the days of restricted use, simply is that down to 1899 there was enough water to practically supply the lessees of non-permanent power all upon the same basis; that is, there was the absence of any complaint by the earlier lessees that they were being discriminated against. As a matter of fact they were all treated alike, or substantially alike; but just as soon as a dry year came,—and of course everybody knows that while the total volume of our watersheds is no less than before, the flow of our streams has become much more irregular than it was in a state of nature,—then the Company ceased to treat the lessees of non-permanent power on a parity, and treated them, as Mr. Sickman frankly admits, according to priority of leases.

The facts as to the leases of these non-permanent mill powers are admitted. All the leases are in substantially the same form. They are subject, as they must be, to all the rights of prior lessees; they are also subject to the lawful claims of all existing lessees of water power on the first level canal; and they are subject to the amount needed to supply the lawful claims of all existing lessees of power on the second and third level canals. The Company also reserves 17 permanent mill powers for itself on the first level canal, being the half mill power at the gas works, which discharges into the river, and  $16\frac{1}{2}$  mill powers drawn from the first level canal into the second; and in addition to that the Company reserves the right to supply these three classes of power with surplus power to the extent of 50 per cent. of the amount covered by the indentures.

These are the admitted facts of the case. There cannot be any serious dispute about them, and from them it is not difficult, we contend, to adjust the respective legal rights of the several holders of non-permanent water power.

It is plain, in the first place, that all the leases of permanent power must take precedence. What their rights are *inter se* is a matter into which we need not inquire at the present time. Whether there is priority among them may become a question of importance in the future, if it should turn out that the Holyoke Water Power Company had oversold its permanent power;

but for the purposes of this case we need not consider this question.

So far as leases of non-permanent power are concerned, they are made expressly subject to all the prior leases of permanent power ; and it is plain, we contend, as matter of law, that, even if that reservation were not in the leases, it would be affixed in law, because the Holyoke Water Power Company has parted with its permanent power by lease, and the rights of a subsequent lessee, whether of permanent or non-permanent power, whether there is any special reservation in his lease or not, must obviously be subordinated to the rights of those holding under prior grants and leases.

It is plain, it seems to us, that lessees of permanent power have no right to their 50 per cent. surplus as against a subsequent lessee of non-permanent power if the Company sees fit to cut off their supply of surplus ; but if the Company sees fit to grant lessees of permanent power surplus up to 50 per cent., then the lessee of non-permanent power has no remedy or complaint, because by the terms of his lease the Company reserves the right to do so. The same reasoning must apply to the prior lessees of non-permanent power, wholly irrespective of the reservation in the lease.

If the City of Holyoke takes a lease of water power upon the non-permanent basis, it must, whether or not any reservation is made of the rights of preceding lessees, be subordinated to their rights, because the Holyoke Water Power Company had the right to grant water power to these eleven lessees of non-permanent, and has done so ; and it has now only the right to lease water power upon a non-permanent or any other basis subject to the rights of the holders of these eleven recorded leases.

The Company also reserves, or proposes to reserve, as against the City, the right to supply the holders of these non-permanent leases with 50 per cent. surplus. That is a right which we do not think would flow from the situation of the parties in the absence of this express reservation ; because, as in the case of the permanent power, the lessees of non-permanent do not have a guaranteed indentured right to surplus. But for the purposes

of this case, construing the offer made by the Company to the City, it is plain that the rights of the City are subordinated to the possibility that the Holyoke Water Power Company may elect to sell surplus to all the holders of non-permanent as well as of permanent power.

Finally, any new lessee of non-permanent power, taking under a lease such as that that is offered us, is subordinated to the right of the Holyoke Water Power Company itself to draw 17 permanent mill powers of water power from the first level canal, and to use in addition 50 per cent. more.

The CHAIRMAN. As a matter of fact, they are not using that 16½, are they?

Mr. MATTHEWS. We do not know; but the Cabot Street Mill, it is in evidence, is largely vacant, and from that fact we apprehend they are not using the full amount of 16½ mill powers. We have a suspicion that they are using some of those 16½ mill powers to run the electric light station, but they do not offer it to us. They could offer us permanent power, Mr. Chairman, and why don't they do it? They have the right reserved, against all the prior lessees of non-permanent power, to utilize and sell 16½ mill powers, and there is no specification or appropriation or assignment of those 16½ mill powers to any particular land along the first level canal. Therefore the Company could, if it chose, offer us permanent power to operate the electric light station with, just as it has offered us permanent power to operate the small water development at the gas works. If they had done so, and had offered us a reasonable amount of power,—say four or five mill powers, such as could be utilized on the 28,000 feet of land for any ordinary purpose,—we should undoubtedly have considered that offer as we have the offer of permanent power at the gas works. If they had offered us a reasonable amount upon the same terms as in the other case, we should probably have been inclined to waive all technical legal objections, and take the power.

But the Company has not done so. The Company is trying to foist upon the City of Holyoke a lease of water power upon the non-permanent basis, so called; and that, we contend,

means in law to subordinate the City of Holyoke to all the rights of existing lessees, whether of permanent or non-permanent power, to the right of the Holyoke Water Power Company to give all those lessees surplus up to 50 per cent. of the amount of their indentured power, and to draw 16½ permanent mill powers itself and 50 per cent. besides.

The suggestion of the Chairman seems to us a most pertinent one. Why do not they give us permanent power? They can. Why don't they? Instead of doing what they can, instead of giving us the same opportunity that they themselves enjoy to operate the electric light station by permanent power, they are trying to foist upon us a lease of an absurd amount of power, five times what they use themselves, and upon terms wholly different from those under which the power to operate that station is now obtained.

I have argued this question of priority, first, by indicating to you what the facts are, and, secondly, by suggesting what the necessary conclusion from those facts must be, without any reference to authority; but authority is not lacking. I can refer you to the case of *Ranlett v. Cook*, 44 N. H. 512, where you will find the rule of law laid down that every lease of water power is subject to all preceding leases, with or without any reservation to that effect in the second lease. The same principle is held in the *Ohio* case cited on page 197.

No other conclusion could possibly be reached by a court of law, and we doubt very much if counsel for the Company will seriously argue that there is in law any parity of use. Mr. Goulding expressly admitted at one stage of the case that, so far as the law was concerned, he did not see why the lessees must not be treated as standing with reference to each other on the basis of priority of lease. I do not find that statement just now, but it is referred to somewhere in the brief. The suggestion made by Mr. Goulding, after having made that admission as a matter of law, was this: that notwithstanding the apparent legal rights of the parties, notwithstanding the apparently necessary conclusion as a matter of law, that the City of Holyoke, if it takes a lease now, will be postponed and subordinated to the

rights of all prior lessees, it is still competent for the Commissioners to value the water power offered as if the lessees stood upon a parity, because as a matter of fact they are treated alike; because as a matter of fact, in his contention, the Company handled its non-permanent power as if the several lessees of that kind of power stood in law upon a parity. That was the understanding of the witnesses for the Company in the early part of this case. The case was prepared, I assume, in 1898 or the early part of 1899, and up to that time there had been no discrimination; but before Mr. Sickman took the stand, at the end of Vol. VI., the dry year of 1899 had intervened, and great discrimination had been shown. So the assumption of fact upon which Mr. Goulding has, at one stage or another of this case, asked you to found your valuation, disregarding for the purpose the legal rights of the parties, has turned out to be without foundation. There is no parity of use in fact any more than there is in law; but there is discrimination in fact, and there necessarily must be whenever we have a dry year, or whenever the earlier lessees insist upon their legal rights.

Even if there had always been a parity of use in fact, it would make no difference. You must value this water power according to the legal rights of the parties. You have no right to assume for the purposes of this valuation that there will be any derogation by consent from the respective legal rights of the several lessees. You have no right to assume that all the lessees of non-permanent power, these eleven mills, will consent that the twelfth or thirteenth mill shall be treated on a parity with them. It would be immaterial if they had been thus treated in the past. That is not the fact. But if it were the fact, it would be immaterial for the purposes of this valuation. You must value this power as offered, according to the terms of the lease proposed, and not according to what may have been, for various motives of convenience and mutual adjustment, the actual practice of the parties.

I submit that as a proposition of law, and I ask your attention to the leading case upon the subject, *Rex v. Liverpool & C. Ry.*, 4 Ad. & E. 650, page 198 of the brief, reinforced by the



late case of *Emery v. Boston Terminal Co.*, 178 Mass. 172. In those cases, which were cases of eminent domain, involving the condemnation of a leasehold interest, it was urged in behalf of the petitioner that the expectation or probability that his lease would be renewed should be taken into account by the Court and jury in valuing the property. It was admitted in both cases that the leases had been renewed from time to time, and probably would be renewed. We have in both those cases what it is said exists in this case, that is, a certain practice; but the Court in both cases held that the practice was to be disregarded in the valuation, and that the valuation was to be made according to the legal rights of the parties. As Lord Denman said in the English case, the fact relied on was nothing but a "hope of renewal." And the Supreme Court of Massachusetts, in the case of *Emery v. Boston Terminal Co.*, uses this language: —

"Changeable intentions are not interests in land; and, although no doubt such intentions added practically to the value of the petitioner's holding, they could not be taken into account in determining what respondents should pay. They added nothing to the tenant's legal rights, and legal rights are all that must be paid for. Even if such intentions added to the salable value of the lease, the addition would represent a speculation or a chance, not a legal right. The Court was right in excluding expert evidence as to an increase in value from that source."

So in the *New Hampshire* case, involving the valuation of a water power, Mr. Chairman, a case on all fours with this, the Court said: —

"Whatever the understanding may have been between the parties as to the effect or construction of these leases, we can only give them such a construction as their terms will warrant."

If we desire to go beyond the cases strictly in point, as that *New Hampshire* case is, and to reach out into the field of analogy, we shall have no difficulty in supplying all the argument that may be needed upon this point, for we have only to direct your attention to cases on water supply and diversion, one of which

is *Bailey v. Woburn*, 126 Mass. 416. The law is well settled that where a water supply company, or a town chartered to undertake a public supply, makes a taking of water rights, it is not the amount that has been used or is likely to be used that fixes the measure of damages, but the amount which the respondent has the right to draw and use.

We conclude, therefore, that the contention that the several lessees of non-permanent power are in practice treated as if they stood upon a parity is without foundation in fact; that if it had any foundation in fact, it would be immaterial; and that these Commissioners and this Court must value this power according to the lease as written, taking into account the prior rights of all previous lessees.

What is the conclusion to be drawn from that? The conclusion to be drawn from that is that the water power offered — any water power offered at the present time — upon the non-permanent basis is incapable of valuation. It is impossible for you to assign any value to a lease of water power drawn as the proffered lease is, subject to the indefinite drafts of prior lessees, and to the impossibility of knowing how many days of restricted use there will be. You can value water power which is permanent. You can value water power which is not permanent, but which is guaranteed for a certain number of days. You can estimate the value of water power for 306 days in a year or for 250 days in a year or for 100 days in a year. But you cannot estimate the value — that is, assign a fixed annual rent — for water power which is subject to a fluctuating use, which is subject to 22 days of restricted use in one year, to 75 in the next, and possibly to 150 or 200 in the end. Such a task, we contend, is an intellectual impossibility. The witnesses for the Company, with all their ingenuity, do not attempt it. The only witness in the case who attacks the problem at all is Mr. Main, and he gives it up as an impossibility. He concludes that the value of any power offered now, subject to all these prior leases, and indefinite and uncertain as to the number of days of restricted use, can only be the value of the water power as measured, and that there can be no assignable market value to a power which is likely to be restricted as

the power offered in this case may be restricted under the lease prepared.

I now pass to another consideration of a wholly independent order. Water power upon the terms offered, even if capable of valuation and otherwise suitable, which we deny, should be omitted from the transfer, as property in the use of which the City would be at a disadvantage as compared with the Company. If we are wrong as to the power of the Commissioners to value this property, if we are wrong in our contention that the valuation must be based upon the quantity reasonably necessary for the plant, and in our claim that the value must be the value for use to run an electric light station, we still have this proposition to submit to your consideration, that a lease of water power on the terms offered would place the City at a disadvantage in its use. We have enumerated in our brief four several particulars in which the City would be operating its electric light plant at a distinct disadvantage as compared with the opportunities now open to the Holyoke Water Power Company. In the first place, the City will be subjected, at the Company's election, to prior drafts of water to satisfy all the contracts that have been or may be entered into by the Company in the future, with respect to the use of surplus power. That applies both to the lessees of permanent power and to the lessees of surplus power. The Company desires to reserve against us the right to sell to all these lessees, 50, 60, or more of them in number, surplus power up to 50 per cent. of the amount of indentured power now leased; but the Holyoke Water Power Company itself is not bound to do that. The Company can cancel those agreements for surplus to the extent that any are now outstanding, upon a year's notice, and it is not bound to make any new ones. The Company, therefore, is in this position, that if it finds that it is giving too much surplus to the mills to run the electric light plant, it can stop; it can sell less surplus, and use the amount of water thus saved to operate the electric light plant.

Mr. BROOKS. Mr. Matthews, will you tell me whether you intend by the use of the word surplus that you made in your argument to cover all surplus?

Mr. MATTHEWS. I am speaking of the 50 per cent. surplus now.

Mr. BROOKS. What my point was, if you will be kind enough to answer me, because I don't quite understand you, do you claim that the proposed lease is subject to not only 50 per cent. surplus draft, but to all other surplus drafts?

Mr. MATTHEWS. No.

Mr. BROOKS. Well, I didn't understand you.

Mr. MATTHEWS. No, I did not. I meant the 50 per cent. surplus. That is apparent from the printed argument.

Mr. BROOKS. Yes, I thought so, but your oral argument I thought was a little different.

Mr. MATTHEWS. Another respect in which the City would be at a disadvantage as compared with the Company is that the Company can now use some of its permanent reserved power to run this plant, and may be doing so, for all we know. The City will not have this right.

Finally, under the lease offered, the water power is made appurtenant to the land. The water power as used by the Company is not. They can use it anywhere.

The last point is not of very great consequence if they don't give us too much power; but the other points are very material. The Company now has the opportunity to draw on its reserved 16½ mill powers of permanent water, and it has the right to give surplus water to the mills as it sees fit, using both these rights in such a manner as will enable it to operate the electric light plant with as small and infrequent a necessity to resort to steam as possible. Under the proposed offer, the City will not share those advantages. It will, therefore, be distinctly at a disadvantage in the use of this power as compared to the Holyoke Water Power Company. The consequence of that condition of affairs is that the Commissioners may either in their discretion omit the water power entirely or include it at a reduced valuation. We think that the fairest way for both parties is to exclude it.

Now, Mr. Chairman, I have failed to make my argument upon

this question of water power clear if the Commissioners have not drawn the conclusion as I went along that there was one and only one legal and equitable method, having the interests of both parties in view, for determining the value of the water power used to operate this electric light station, and that is to draft or suggest such a lease as will permit the City of Holyoke to have and enjoy the exact amount of power that is now used, and to pay for it on the terms of measured water. This suggestion has the merit that it does not open any difficulties in the valuation of the water power, because it is uncontradicted that water power on the measured basis is worth \$5 a mill power per day, or \$1,500 a year in round numbers, for the usual manufacturing year, but, more literally, \$5 for each twenty-four hours. And, whichever way you look at this problem, it will involuntarily suggest itself to you that all the difficulties will be obviated by a lease which should provide for the use of water power sufficient to run this plant upon the basis of measured water at the rate of \$5 a mill power per day.

Without dwelling on the details of such a lease, I will refer you to the brief, page 262. I will simply say that it is easy enough to draw a form of lease adequate to accomplish this desirable end. You cannot impose it upon either party to this suit, against its will. You cannot impose upon the Holyoke Water Power Company the obligation to furnish to the City of Holyoke water power upon the terms of measured water, if it does not consent, because that would be taking its property *in invitum*, and you have no jurisdiction to do that; nor can you force upon the City of Holyoke the obligation to take a perpetual lease on terms of surplus or any other terms, whether the water is to be paid for as measured or not; but what you can do, it seems to us, is to say to the parties to this case that this water plant without any water is unsuitable for the purposes of its use; but that, if it is accompanied by a tender of water power upon the terms of measured water, then the City of Holyoke should complete the transaction and take the water plant at such a value as you find it to be worth for the purposes of its use.

You will find little difficulty in constructing a lease upon those

terms. We have endeavored, on page 262, to draft a form of lease incorporated in the conveyance of so much of the electric light plant as belongs to their water development, considered by itself. We have endeavored to protect the rights of both parties; we have incorporated in the lease all the "regulations," so called, which are applicable to a case of this sort, and we have constructed the lease in the form of a deed poll, securing the rent by means of a condition rather than by means of a covenant, for the reasons stated yesterday. Such a deed is easy to draw. If we have not got the matter in in all particulars in the form that we suggest, the defects can easily be remedied by the Commissioners. We have endeavored to incorporate in our draft every clause that the Company could fairly ask for its protection, and we have endeavored, of course, to do the same for the City. The proposition is in substance this: that the water plant, considered by itself, the land about it, the wheelhouse, tailrace, and the machinery are to be taken by the City of Holyoke at such a figure or sum as the Commissioners award, provided the Company will tender the City a deed, or a lease, which will enable the City of Holyoke to get the water power that is actually used and is reasonably necessary for the operation of its electric light plant, upon the basis of a rent of \$1,500 per mill power per annum, to be paid for as measured at the gate readings, which will secure to the Company the payment of that rent by means of a condition for re-entry in case the condition is broken, but which will not, in violation of what we conceive to be elementary principles of law, impose upon the City of Holyoke a perpetual covenant to pay the rent. If the City doesn't pay rent, the Company doesn't furnish the water power, and its rights are entirely protected. If the City does pay the rent, then, *ex hypothesi*, there is no ground for complaint on the part of the Company. The legal advantages of such an arrangement have been pointed out already, and must have occurred to you as I went from point to point in this argument yesterday afternoon and this morning. The practical advantages of it are equally great, and there are no disadvantages that we can see. It might, of course, be contended by the Company, if this land were a

hundred thousand feet in area and the Company gave the City water power at measured rates, that this would involve the payment of only five thousand dollars per annum, whereas they might obtain more for it upon the non-permanent basis from some one else. That difficulty is rather a theoretical one than a practical one, because, as a matter of fact, there isn't a hundred thousand feet offered, but only twenty-eight thousand feet available for building; and you must be satisfied, upon the evidence, that not more than four or five mill powers are fairly marketable with that amount of land. So that the Company cannot be assumed to have a market for more than four or five mill powers of water on the non-permanent basis in connection with this site. And if you go upon the rent that has been previously paid for non-permanent power in Holyoke, \$600 a mill power, you get a total rent upon that basis that is less than what will be due from the City for the use of the necessary water to run this plant upon the basis of measured water. Even if you took the higher rent asked for by the Company,—four mill powers, at \$1,500 a year,—that would only be \$6,000. The difficulty is rather theoretical than practical.

If, however, it is a difficulty which cannot be overcome in the manner suggested, or disregarded for the reasons indicated, then we fall back upon one of our early propositions: that water power upon any other basis than is suitable with respect to price for the operation of the electric light plant must be disregarded by the Commissioners and omitted from the transfer as unsuitable. In that event you leave with the Company its water power, for such use as it can make of it elsewhere; and incidentally you omit the water plant also, because without power the plant is unsuitable.

However you look at this question of water power, and the numerous difficulties presented by this branch of the case, the solution of the legal and practical difficulties is alike to be found in the suggestion of a lease of water power upon what are commonly known as surplus terms, by which the City will get the amount of power it needs, and will pay for it such a sum as they can afford to pay for the water reasonably necessary to run a

central lighting station, and no more. This will give the Company every dollar it now returns to the Board of Gas and Electric Light Commissioners as the fair annual value or cost of the power used to operate this station.

This whole question of water power is evidently bristling with difficulties and technicalities, and both parties, Mr. Chairman, evidently stand upon the technicalities of their position. The reason which actuates the City of Holyoke in raising every conceivable question of law with respect to the water power is that it does not want it upon any terms, or price. Nor does it want the water plant at any price. The reasons which have actuated the Company to refrain from offering its water power for valuation by this Commission are, perhaps, not so obvious; but they are not difficult to spell out. The Company has not dared to have its water power valued by this Commission, and therefore it has exercised what we concede to be its legal right, and has offered it at a fixed rent and upon fixed terms and conditions. And it trusts to worry out some sort of decision based upon that conditional offer.

I have now covered this case so far as I intend to, leaving the details of the evidence relating to the valuation of the gas plant and electric light plant to be more carefully considered by my associate. But before handing on to him the burden of this argument, I desire to direct the attention of the Commissioners to the personal character of the evidence which has been offered by the respective parties in this case.

A great number of witnesses were produced by the Holyoke Water Power Company, a smaller number by the City of Holyoke; but, although the question for consideration by this tribunal was the value of a gas plant and the value of an electric light plant, it must have struck the Commissioners — as it did us — with surprise that the Company did not put a single witness upon the stand who had ever bought or sold a gas or an electric light plant for cash. Not one. No witness was produced by the Holyoke Water Power Company who had ever bought or sold a gas plant for cash. Mr. Humphreys had bought up gas



properties for consolidation purposes in the organization of the various gas trusts about Philadelphia and New York, but he admitted that they were all consolidations, and were not actual cash sales. Mr. Humphreys had, however, a limited experience in the purchase of gas properties; but, singularly enough, Mr. Humphreys was not asked, Mr. Chairman, to value the gas plant in this case, or the electric light plant, and he gave no valuation. His testimony does not contain any valuation for the property of the Holyoke Water Power Company used either in its gas business or in its electric light business. And yet Mr. Humphreys was the nearest approach to anybody produced by the Holyoke Water Power Company who had ever bought or sold a gas works. None of the other witnesses had either bought or sold a plant or a company, whether for cash or for stock. No witness produced by the Company had ever bought or sold an electric light plant, meaning a public or central lighting station, upon any terms whatsoever, whether for cash or for purposes of trust formation.

On the other hand, the City has done what it could to enlighten the Commissioners as to the fair market value of gas and electric light plants, by producing men who have actually sold and actually purchased such properties. Witnesses upon the gas part were very difficult to obtain, for obvious reasons. The gas industry in this country is closely consolidated, and the men interested in it are all bound together by ties of self-interest. But the business of electric lighting is an open one, and it was possible for both parties to this controversy to produce any number of persons who had actually bought and sold for cash. We fulfilled that obligation. The Company did not. We produced Mr. Blood and Mr. Stone, both of whom had had much experience in the purchase and sale of electric lighting plants, and one of whom—Mr. Stone—has probably had a greater and wider experience in this regard than any man in the country.

Turning now to experts on the manufacturing side of the case, the Company produced no manufacturer of electrical apparatus or appliances. It produced no manufacturer of gas appliances to testify to the value of the gas plant. Mr. Hum-

phreys is a well-known manufacturer, but he didn't give a valuation to the Company's gas plant. He valued the Company's earnings, franchises, good will, and so forth, but he did not give any valuation of the Company's plant.

The City, on the other hand, produced the largest manufacturer of gas appliances in New England, Mr. Davis, the senior member of the firm of Davis & Farnum; and for the electrical plant we produced Mr. Warner, general manager for New England of the Westinghouse Company,— the largest, or one of the two largest manufacturers of electrical appliances in the United States. So far, then, as to the weight to be attributed to the experience of the witnesses for the respective parties in the actual sale or purchase of gas and electric light properties, or of the apparatus and machinery used in them and for them, it lies overwhelmingly with the witnesses for the City, notwithstanding the obviously superior opportunities of the Holyoke Water Power Company, as a gas and electric light company, to select from the whole field of gas and electric lighting in this country. The City also produced Dr. Amory, who had been connected with the gas business for many years, as the president and general manager of the second largest gas company in New England, and who had the special qualification of having recently superintended the construction of the largest gas plant ever built in New England at a single time.

The City, in so far as the question of water power is concerned, produced not only Mr. Warner, an expert upon electric lighting plants, but Messrs. Main and Manning, mechanical engineers of the highest standing, Dr. Bell, a gentleman of the widest experience, both theoretical and practical, in the consideration of questions relating to power, and Messrs. Stone and Blood, who have had greater experience than anybody in the country in the actual management and operation of central lighting stations, whether operated by steam power or by water power, that being their business, or the principal part of it.

The Company did not produce a single witness who had ever installed a complete electric lighting station. Not one. We

had Warner, Bell, Blood, and Stone, some of whom had installed a great many, all of whom had installed some, and some of whom were engaged in the practical operation of many central lighting stations at the time they gave their testimony in this case.

So much for the qualifications of the witnesses for the respective parties in this case. It is unnecessary to particularize, it seems to me. The City of Holyoke, we contend, has discharged its obligation to this Commission to produce men familiar with the business of gas and electric lighting, and men familiar with the prices actually obtained for such properties at private sale. The Company, having immensely superior opportunities, particularly in the matter of gas, has failed to discharge its obligations in this regard, and has been content to rest the extravagant valuations which it introduced into the case upon computations made by professional magnifiers of value, who are not practical mechanical, electrical, or gas engineers, or, if such, have had nothing to do with the purchase and sale of property, but whose principal, if not sole, occupation is that of wandering peripatetically about the country, from case to case, multiplying values.

The main reliance of the Company in this case is upon the testimony of such men as Allen and Whitham, for they are the persons who figure out the value of water power to meet the demands of the officers of the Company at \$1,500 a year. Those gentlemen and their methods have doubtless inspired the other witnesses for the Company; and they may be fairly regarded as typical witnesses. If their results are discredited by their own processes, by the inapplicability of those processes as disclosed in cross examination, that discredit affects not only them, but all the other witnesses for the Company in this case who have used similar processes and reached similar values by similar methods.

As I stated at the beginning of this case, the witnesses for the Company, apart from these mathematical computations based on wholly inapplicable methods and considerations, and intended simply to magnify the value of water power — apart from that

branch of the case, the witnesses for the Company have adopted the one simple, easily applied, but utterly inconclusive, test of reproductive cost. They estimate the cost to reproduce the Company's plant new, they make a deduction for use and age or wear and tear alone, and they call the result — adding to it the engineering charges and the cost of installation — the present value of the plant. For the reasons I have already given, we contend that such a mode of valuation, while legally admissible and in some cases of a certain value, is of very little value even in the case of a plant of modern design, and in such a case as this, where one of the plants is half a century old and the other practically obsolete in type, is of no value whatever. It is, moreover, as applied by the witnesses in this case, open to the further and equally serious objection that it involves the valuation of the separate parts of the plant unconnected and dissociated from each other, and the result reached by the simple process of addition is the value of nothing at all. This process of taking the value of the land as if it were unencumbered by buildings, taking the value of the buildings at reproductive cost regardless of their mechanical value in relation to the machinery and each other, ascertaining the value of the machinery in like manner, and adding the whole together, reminds me of nothing so much as the process by which the learned editor of the *Eatonswill Gazette* wrote his celebrated article on "Chinese Metaphysics." The Commissioners will remember that the process adopted in that case was for the editor to read up the article on "Metaphysics" in the *Encyclopædia Britannica*, and then the article on "China." He then, as he stated to Mr. Pickwick, "combined his information." Now this process of reproductive cost, as applied by the witnesses for the Company, differs in no respect from that. They take two utterly unrelated things, they value them as unrelated, and then they say that the value of the whole is equal to the aggregate value of the unrelated parts.

The witnesses for the City, as I have pointed out, take into account the reproductive cost of the plant, but do not rely on that alone. They take all other proper factors into account.

They take particularly into account the advancement in the art since the installation of this plant; that is, the comparative mechanical value of the several parts of the plant in comparison with what would be built at the present time. They adopt no one process in particular. They resort to every consideration that a practical business man about to purchase these plants would make inquiries into. Their resulting valuation is one which is not based upon any invariable rule, but is the result of applying every practical method of valuation that could possibly be of any use.

To indicate somewhat more in detail the methods adopted by the witnesses for the Company, I would like to ask you to listen to a few interesting extracts from the testimony of the witnesses for the Company.

The first witness they put upon the stand as an expert was W. H. Foster, an accountant, but he had had no experience in the accounts or accounting of gas and electric light companies in this State. And yet gas and electric light companies are, in the matter of accounting in Massachusetts, under the charge of the Board of Gas and Electric Light Commissioners, a fact which Mr. Foster did not know, or, if he knew, paid no attention to. He did not know, for instance, that the Gas and Electric Light Commissioners compel the companies under their jurisdiction to charge off large sums annually or every few years for depreciation. This witness performed the curious feat of presenting whole series of tables in rebuttal based upon the theory that the depreciation charge in any given year by any given gas or electric light company represents the depreciation for *that* year, although he knew very well, and was obliged to admit on cross examination, that that was not the case. He knew the practice by that time, because he was then testifying in rebuttal. He knew that the practice of gas and electric light companies in this State, under the instructions of the Gas and Electric Light Commissioners, is to make lump charges every few years representing the aggregate depreciation in the interval, and not to make a charge in each year as and for that particular year alone. He produced a lot of computations in rebuttal, and said that he had taken the

companies which Mr. Chase had "selected"! What are we justified in inferring as to the intellectual or moral characteristics of a witness, who knew as much about this case as W. H. Foster did, who in rebuttal, in the fourteenth or fifteenth volume of the testimony in this case, deliberately said that our witness Chase had "selected" these companies, when he knew and finally admitted on cross examination that all that Chase did was to take the very companies which the witnesses for the Company had themselves selected in their case in chief? Mr. Chase's whole testimony, all his tables, were based, so far as this discussion is concerned, upon the experience of the companies that Mr. Prichard and Mr. Nettleton had themselves selected as comparable with Holyoke, being all the companies in the State within certain limits of population.

Now Mr. Foster knew that. He knew it, and yet he made a great point in rebuttal that Chase had "selected" his companies. Mr. Foster then proceeded to work up some other statistics by selecting other companies of his own, claiming that he was justified in so doing because Chase had exercised an individual selection.

Randolph, another of Humphreys & Glasgow's employees, announced in his testimony in chief—and with respect to Randolph, Mr. Chairman, as with respect to all their witnesses, we ask you to contrast what they said in chief with what they said in rebuttal, when they were put on after they had found out what this case was about—Randolph, in his testimony in chief, announced the theory that the cost of manufacture was no part of the problem of valuation. He made this statement,—and I ask you if you believe it or believe that he believed it,—that he would value two gas plants at exactly the same sum, although in one of them you could manufacture gas at 50 cents in the holder, while in the other it would cost you 75 cents in the holder! According to Randolph, the value of those two plants is just the same. Mr. Chairman, nobody in this room believes that, and Randolph did not believe it himself. He, like the other witnesses for the Company, had been directed to base his valuation upon reproductive cost, and a valuation based upon repro-

ductive cost produces that result. Two gas plants may be standing side by side, costing the same amount to construct. One of them may be able to turn out gas at 50 cents in the holder,—and that is a fair cost to-day for gas in Massachusetts; that plant may fairly be worth, if it is a new plant, its reproductive cost. The other plant, owing to some mistaken engineering or to some error in the processes adopted or the patents used, is a failure: it cannot make gas at less than 75 cents in the holder, and that means it cannot make gas at all; for nobody would use it for the purpose, and the plant is worthless for the purposes of its use. But Mr. Randolph says it is worth just the same as a gas plant that can turn out its product at current commercial prices! He never examined a gas works in Massachusetts; he made no inquiry as to the cost of getting work done in Holyoke; and his whole valuation was based upon data which he refused to produce.

That was Randolph in chief.

Now when Randolph reappeared upon the scene in rebuttal he performed some very curious intellectual contortions. He was evidently much struck, as the counsel and officers of the Company must have been, by the demonstrations which had been made by Mr. Chase that the Holyoke Water Power Company's mains consisted of an inordinate percentage of small-sized pipe, that the leakage was excessively high, and that there was an intimate and necessary connection between those two facts, indicating serious defects in the gas mains of the Company. How did Mr. Randolph try to meet that evidence in rebuttal? Why, in this way, Mr. Chairman, and it seemed to me that everybody should have smiled as he was stating it: he attempted to correct the leakage or the amount of gas unaccounted for in the Holyoke system by correcting the temperature. He may have been justified in doing so; we do not know, we did not care to inquire, for he contrasted that result with the *uncorrected* result for the other companies in the State. What an absurdity! If there was anything in his theory of reducing the amount of gas unaccounted for by reason of its having been measured at an excessive temperature, he should have applied that process to the other

companies in the State, for *non constat* that the gas may have been measured for them at as great an increase over the normal temperature as was the case in Holyoke. Then he worked out in like manner a new method for getting at the average size of the mains in Holyoke. There may be something in it or not; we did not care to inquire, because Mr. Randolph did not apply that system to the mains of the other companies, although he could have done it. He could not have got the temperature factor for his other calculation, but he could have applied this method of calculating sizes to the other companies in the State, and he did not. He attempted to show that there was not a large percentage of small-sized mains in the Holyoke system by means of contrasting his corrected and revised figure for Holyoke with the uncorrected and unrevised figures for the other companies in the State.

It is impossible for the witnesses for the Company in this case to escape from intellectual fallacies that would make a primary school boy smile, and they kept it up from the beginning to the end. These two instances, it seemed to me, were as conspicuous as any.

Now let us turn to the employer of Foster and Randolph, Mr. Humphreys. He admits that every valuation he made was for the purpose of consolidating one company with another. He says that he has had no experience in electric light plants run by water power, that he has never been called on to value a water power plant, that he never valued a plant under circumstances like these, that he takes no account of the laws of Massachusetts or the prices charged by the Company as compared with other companies in the State. He winds up by the confession or admission or claim, whichever you choose to call it, that he is incapable of distinguishing between the value of a gas or electric light plant, irrespective of the franchises used to operate it, and junk!

Mr. Wright, another employee of Humphreys & Glasgow, says that the cost of operating any plant is an important element in its valuation, and that the cost of operating the electric light plant owned by the Holyoke Water Power Company is high.



Now, Mr. Chairman, wouldn't you suppose that an expert employed by a corporation to value an electric light plant, who knows, who admits, what is of course the fact, that the cost of operation is an important factor, would take some pains to find out what the cost of operating this plant was? But he did not; he took no steps, he says. He saw from an inspection of the accounts that the cost was high, but he took no pains to find out just how high, how excessive, the cost of operation was, or the causes for that excessive cost. Although he knew perfectly well how such a plant should be valued, having reference to excessive cost of operation, he declined to put that knowledge into effect or to rely upon it in this case. Why, Mr. Chairman? Why? Because he, like the other witnesses for the Holyoke Water Power Company, had been instructed that in order to get a high value for the Company's property in this case they must rely upon the sole test of reproductive cost, and must ignore all these considerations of relative inefficiency in operation. That is the explanation of the ridiculous position taken by Wright, a man put upon the stand as an expert, who says that he knows that a certain consideration ought to have been taken into account, but has not done it. He also had had no experience in the purchase, sale, or operation of electric light plants in Massachusetts, and had never had any experience in the operation of any electric light plant anywhere by water power.

I come now to Mr. Prichard. Mr. Prichard says he is not familiar with the practices of Massachusetts gas companies in regard to depreciation. Well, Mr. Chairman, you or I can tell him more about his own company in that regard than he was willing to admit upon the witness stand. Mr. Prichard is the manager and engineer of one of the best operated gas companies in Massachusetts; and I will ask, you, gentlemen, to turn to the reports of that corporation, as published annually by the Board of Gas and Electric Light Commissioners, and note what it charges up for depreciation. Anybody can do it by simply inspecting the annual reports of the Gas Commissioners. But Mr. Prichard said upon the witness stand, under oath, that he did not know what his company was charging for depreciation

annually. He did not dare to know it, Mr. Chairman. It was such an amount which, if it indicated correctly the proper practice of gas and electric light companies in Massachusetts, would have cut his valuations of the property of the Holyoke Water Power Company down one-half.

Notwithstanding this astounding ignorance on the part of Mr. Prichard, he does not hesitate to value this property, and he does not hesitate to value it, although he says he is not qualified on the question of water power, and that he has never concerned himself with financial matters. He, Mr. Chairman, was left before he stepped down from the witness stand in the same position that Mr. Wright had been left in: Mr. Prichard admitted that the cost to manufacture was an important element in the valuation of a manufacturing plant. He says this: "A common factor in ascertaining the value of a gas plant is the cost in the holder." Now, Mr. Chairman, if that is so, why did not Mr. Prichard try to ascertain what the cost of gas in the holder in this case was, and why didn't he use the information that he might thus have gained? He ought to have done so consistently with his reputation as an expert; consistently with his own admission as to the proper way to value a gas plant, he should have gone first to the cost of operation; he should have addressed himself to that problem first. But he did not, first or last. And why didn't he? Because if he had, Mr. Chairman, if he had found out what the cost of operation was, and if he had used that information, he would have had to cut \$50,000 or \$100,000 off the valuation that he had put upon the gas plant, because Mr. Humphreys admits that it costs eight cents more in the holder to manufacture gas by this plant than it ought. And the whole testimony of the witnesses for the Company, as you will see by referring to that portion of our brief which considers this point in particular,—the whole testimony of the witnesses for the Company is that this gas plant is a poor plant, judged from the standard of the cost of manufacture. That is the testimony of Mr. Humphreys, of Mr. Randolph, and of Mr. Prichard. And yet Mr. Prichard, like Mr. Wright, makes no use of that fact, and says he did not inquire what it

amounted to. In like manner he does not know what it cost to operate the electric light plant. Just think of that. He made no attempt to ascertain the cost to operate that plant, and does not even know the capacity of the station. He has had no experience whatever, he says, in electric light plants operated by water power. Yet that is what he was valuing in this case. He did not hesitate to give a value to the electric light plant in this case, although he knew nothing about the value of water power for that purpose, and although he had made no effort to ascertain what it cost to run the plant. Mr. Prichard is also the author of that celebrated production known as Prichard's table,—a most useful thing for the City of Holyoke, as it turned out in this case, because it enabled us to show what the allowances for repairs and depreciation ought to be at Holyoke, based upon the practice of other companies in this State, without subjecting ourselves to the charge that we had selected our own companies for the purpose of the comparison. We simply took Mr. Prichard's companies, and deduced our results from them. But Mr. Prichard's table, while useful to us, is a sad illustration of his incapacity as an expert. It is based upon three mathematical errors which he himself concedes to be such, and it also involves some other minor fallacies. The principal error is that by which he seeks to deduce the average price of gas and electricity. I ask you, gentlemen, to consider with all seriousness the spectacle of a professional engineer in charge of a gas and electric light company in this State, and one of the most prosperous of them all, who goes upon the witness stand as a qualified expert to value a gas or electric light plant, and does not know how to figure out the average price of gas. You remember his process. He takes twenty-four gas companies; he finds the average price at which gas is sold by each company; he takes the average of those average prices, and says that that figure represents the average price at which gas is sold in these communities as a whole. Of course it does not represent anything of the kind. It represents nothing. It is not an average of anything, unless it be the average of the average prices, which is a thing of no use or meaning. What Mr. Prichard was

after was the average price received by those companies as a whole for gas per thousand feet, or the average price paid by the consumer in those communities. To correctly make the calculation he had only to take the total consumption in the communities in question, and the total amounts paid by the consumers for gas, and divide one sum by the other.

If he was in doubt as to whether that was the proper course, he could have turned to the reports of the Gas Commission, and he would have found that the Gas Commissioners figure out the average price of gas each year, and that they do it in the way I suggest and that any one but Mr. Prichard would adopt. The Gas Commissioners state in their report what the average price of gas in Massachusetts is,—something over \$1 at the present time, between \$1 and \$1.10, I think. They do not get that by averaging the average price obtained by each Company, but by dividing the total consumption of gas in Massachusetts by the total price paid for gas, as is obviously the only proper way.

What do you think, Mr. Chairman, of a man posing as an expert, and making a mistake like that,—a fundamental mistake, which throws his whole table out and all the deductions based upon it? Of course he admitted it was a mistake in the end, and Mr. H. A. Foster told him how to figure it out properly, or did it for him.

Mr. BROOKS. Where does all this appear? You say he did this, that, and the other thing.

Mr. MATTHEWS. Look at the table; it speaks for itself; and his cross examination, page 178 of Vol. II., and elsewhere.

Mr. BROOKS. I was talking with reference to Foster's figuring it out for him.

Mr. MATTHEWS. Well, he did it. We all remember it. He went up to the witness stand and made the calculation for him.

Now Mr. Fowler was a man of more intimate acquaintance, Mr. Chairman,—and I would like you to note this point in passing,—with conditions in Holyoke, and for that reason Mr.

Fowler's estimates of reproductive cost, that is, of contract cost, are very close to the estimates of the witnesses for the City. He lived in the adjoining city of Springfield, and knew with greater accuracy than the other experts for the Company, or for the City, for that matter, could what the current price of materials and labor in Holyoke was. So far as his estimates of new cost go, they are materially lower than those of the other witnesses for the Company, and approximate quite closely to the estimates made for the City.

But Mr. Fowler was put upon the witness stand as an expert upon the cash value of gas works. He had never valued any plant for sale or for any other purpose, and he gets into trouble about the cost of manufacture. I would like you to note what he says upon this point, and how he attempts to get out of it. It is more ingenious and more curious than the intellectual vagaries of Mr. Randolph even. Fowler says that he knows what the cost to operate a gas works ought to be, but made no inquiry as to the actual cost of manufacture at this plant. Why didn't he? Because if he had he would have found out that the cost was high, and when he was pressed on cross examination on that matter he falls back upon the theory of reproductive cost in its baldest aspect, and justifies it thus: that a gas plant twenty-five years old is just as good and worth just as much as the day it was built, providing it is doing its work properly at the time of valuation. And then he finally says that he valued the Company's gas plant as if it would last forever!

In other words, if you have a boiler or an engine, and it will last twenty years, it is operating in the nineteenth year, we will say, still going, in good physical condition, but we know it is on its last legs, that it has to be taken out in a year; and yet according to Mr. Fowler it is worth just as much as when it was bought. That is what reproductive cost comes down to when carried out logically and consistently. Take Mr. Randolph's justification of it, and contrast it with Mr. Fowler's. Mr. Fowler is forced to admit that he has valued this plant as if it would last forever, and Mr. Randolph is forced to admit that he would value a plant that could not be operated commercially, owing to the

cost to turn out the product by it, at the same sum that he would value a plant which could manufacture at two-thirds the cost per unit.

Mr. Sherman comes next in order. Mr. Sherman was the ingenuous gentleman who had never heard of depreciation until he came to Holyoke as a witness, and made an estimate of what it would cost to reproduce this plant without making any inquiry as to local prices. When he came to give a value for the property of this Company, including its franchises and so on, he based it, he says, upon what he thought had been the experience of the Bay State Gas Company, which he says was allowed by the Court to capitalize its earnings on a 4 per cent. basis.

I would like the Commissioners to turn to the Statute of 1893, Chapter 474, which I referred to the other day, being the act under which the property of the Bay State Gas Company was valued, and then to turn to the reports of the Gas Commission showing the result of that valuation. They will see how close Mr. Sherman's idea of what happened in that case came to the fact. That company had been paying out \$500,000 a year in dividends and interest for several years, but the Commissioners found the value of its property to be exactly \$2,000,000. According to Mr. Sherman's idea of what that decision was, capitalizing the earnings on a 4 per cent. basis, the value would have been something very much in excess of \$2,000,000. \$12,500,000 I believe it would be. Now in that case the Commissioners, acting under a statute which is so similar to this that I cited it when I began my argument the other day, found a value of only \$2,000,000.

The last witness put upon the stand by the Company upon its gas plant was Mr. Allen,—our old friend Allen, who has been travelling around from water case to water case ever since we have known him. But this time he appeared in a new light, as an expert valuer of gas works and electric light properties. He had had no experience in the construction, installation, or operation of either. He does not know what the cost of manufacture ought to be, either for gas or electricity.

So far as the evidence in this case goes, he had never seen a gas works or electric light plant before ; and yet he did not hesitate to value them, taking practically all his figures from other witnesses, and estimating himself simply the buildings and gas mains.

He wrestles with the problem of depreciation in this way. He says he did not allow any, because he, as well as Humphreys, thinks the percentage of gas unaccounted for was small in Holyoke as compared with other places in Massachusetts, and the expenditure for repairs was high. As a matter of fact, both of those assumptions are the direct converse of the truth. But the singular and amusing part of Mr. Allen's whole testimony was the assumption that he should attempt to qualify as a valuer of gas properties and electric light plants.

I am passing by the eccentricities of these witnesses, beginning with Mr. Allen, on the valuation of water power, because I have already said something upon the subject, and Mr. Green will have something more to say.

Passing now to the electrical experts, we have in the first place Mr. Robb. He admitted that he had had no experience in the valuation of electric lighting plants for sale, that he had never had any experience in the business, management, or operation of any plant except that at Hartford, and that he knew nothing about the laws or practices of Massachusetts.

H. A. Foster came next. Mr. Foster had had no experience with electric light plants, either in construction or management, since 1891. In estimating the cost of buildings he adopted this curious process : He conferred with Mr. Allen ; and whenever his estimates were the same as Allen's he took his own, but whenever his estimates were lower than Allen's he took Allen's. That is an ingenious way of averaging results : to take your own when they are as high as the other man's, and the other man's when they are higher than yours. In that way Mr. Foster, I think, reached a total even higher than Allen's for the buildings.

Mr. Foster knew something. He knew how to figure aver-

ages, and instructed Mr. Prichard on the witness stand in that regard. He knew something, or thought he did once, about depreciation, because Mr. Foster is a man who had been considerably employed by the electric light companies of this country in the controversy which rages all the time over the subject of municipal ownership. During the course of Mr. Foster's investigation into that subject, he had had occasion to consider this question of depreciation, and he and Mr. Chase are the only witnesses in the case who have made a theoretic study of that subject, or who had before this case began. But you will notice that Mr. Foster does not apply his knowledge of depreciation, gained when he was acting for the electric light companies of the country at large, to the facts of this case, because it would not fit the exigencies of the Holyoke Water Power Company here.

Mr. Foster's elaborate article, written for the *Electrical Engineer* of May 12, 1898, several months after the day of valuation in this case, contains a strong and, to my mind, convincing argument that the annual rate of depreciation in electric light plants is at least  $7\frac{1}{2}$  per cent. Why doesn't he apply that to this case? He tries to squirm out of that question, and evade a direct answer to it, by suggesting that in his article in 1898 he was considering plants built in 1890. That is not so. His article in 1898 shows for itself that he had in mind all electric light companies on the average, as they then existed, in their then condition, at the date of the article. But if the explanation had been correct, it would not have helped him any, because the type of this plant is not that of 1898, but it antedates 1890 even. It goes back to the days of Schuyler dynamos, to the period of 1884, to the earliest days of electric lighting, the days when that art was in its infancy. Mr. Foster's explanation leaves him worse off than if he had not made it. The simple fact of the matter is that if he had applied his percentage of  $7\frac{1}{2}$  to the valuation of the property of the Holyoke Water Power Company in this case, to their electric light plant, his resulting value, Mr. Chairman, would have been less than that which our witnesses assigned to it. It would have been \$100,000 less than what



the Company wanted him to maintain. And therefore, instead of taking  $7\frac{1}{2}$  per cent., as he had as a public writer stated was necessary to be allowed for that purpose, he took only  $1\frac{1}{2}$  per cent. per annum. He cut the percentage which he said as a public writer was necessary into five, and applied the quotient to the necessities of his client in this case.

The next gentleman was Mr. Whitham, our ingenious friend, whose only qualification as an expert in this case, or any other case that I can see, is his employment as a boiler and engine tester. Having been a tester by profession, he has become a testifier by vocation. But he himself, Mr. Chairman, disparages all such tests. After having primed counsel for the Holyoke Water Power Company with the value of this experience in testing boilers and engines as a qualification for an expert in a case like this,—you know that Mr. Brooks always asked our people if they had ever tested boilers and tested engines, and he got that from Mr. Whitham, because that was his only qualification,—what does he do in rebuttal? Whitham says tests are not any good, and elaborates that theory for two whole pages. That is because we had a test made of this apparatus down at Holyoke during the progress of the case, and it didn't work out the way Mr. Whitham wanted it to, and so *then* he says these tests are not of any use, and discredits them as “dress parade” tests, to use his words, as the Chairman will recollect.

Now Whitham never had any experience to qualify him to testify in a case like this. He never bought, sold, or valued an electric light plant in his life; and he, like Humphreys, cannot distinguish between the value of a plant without its franchises and the value of the materials and labor in it as junk. The thing to be done in this case is to value property for the purposes of its use,—not at its franchise value, not at its valuation including franchises, nor, on the other hand, at its second-hand value as junk or otherwise. So that Mr. Whitham, as well as Mr. Humphreys, has written himself out of this case by his admission that he is intellectually incapable of valuing property such as is involved in this case. Finally, my brother Brooks himself was obliged to admit, on pages 218 and 219. of Vol.

IV., that Mr. Whitham's only qualification was that of "any ordinary business man."

Newcomb next appeared upon the scene. Well, Mr. Newcomb knew something about steam plants in Holyoke apparently, but he had never had any experience in the installation, operation, or valuation or purchase or sale of any electric lighting station. What was the use of putting Newcomb on the stand to testify to the fair market value of a central lighting station, when he had never installed one, operated one, valued one, bought one, or sold one? And that question applies practically to every other witness produced by the Holyoke Water Power Company.

Anderson came next. He had never had anything to do with the construction or operation of any electric light plant except that of his own company in Springfield. He got into trouble with the depreciation allowances for his own company. He had to figure depreciation for this case. Well, the United Electric Light Company of Springfield is a very well-managed concern, and, as with all well-managed electric light companies, it sets off and charges up each year a large amount for depreciation. He allowed in this case, Mr. Chairman, one per cent. per annum for depreciation, and he said that he had based that allowance upon the experience of his own company. Then he was confronted with the returns of his own company, which showed that they charged off every year five per cent. That is the way that one of the witnesses for the Holyoke Water Power Company reached an utterly preposterous valuation for this plant, by pretending to base the depreciation of it from new cost upon the experience of his own company, but taking one-fifth of the amount that his own company charges.

He did something else that was rather funny, too. He said he ignored all the information contained in the reports of the Gas Commission. He said that at first. Then he qualified it by saying that he took into account the jurisdiction of the Gas Commission over prices; and finally wound up with the statement that he had no knowledge as to what the effect of that jurisdiction was. If he didn't know what the effect of the jurisdiction of the Gas Commission over prices was, how on earth could he

have taken that jurisdiction into account? The fact of the matter is that he, like the other witnesses in this case, simply floundered, from the first page of Vol. I. to the last page of Vol. XV., — floundered about from proposition to proposition, driven first from one to the other, because they had been instructed to value this property according to reproductive cost and to apply no other test of value. For that reason they had to minimize depreciation, or sometimes to eliminate it altogether, to ignore the experience of their own companies, to ignore every consideration that any man of sense would take into account. That is the explanation of the intellectual eccentricities exhibited by the witnesses upon the stand. They are not wholly themselves to blame for it, except morally for lending themselves to such a purpose.

Mr. Green testified about the value of this electric light plant, but he never built one, installed one, operated one, bought one, or sold one. His qualifications were absolutely negative, just as Mr. Newcomb's were. In his schedule of contract cost of this property he valued brick laid in cement at \$12 a thousand, although he had himself, he admitted on cross examination, laid brick in January, 1898, at \$10 a thousand. Isn't that rather a reckless difference for even an expert for the Holyoke Water Power Company to incorporate in his valuation, — an excess of two-tenths, or 20 per cent., beyond the figures he admitted he was getting brick work done for on the day of valuation?

He pretended, Mr. Chairman, to give a value for non-permanent power in Holyoke of \$1,500 per mill power, but he said he did not know anybody who would pay that price for it. What is the evidence of a man like that worth as to market value, if he knows there isn't any market for it, or doesn't know that there is a market for it at that price, which is the same thing? He doesn't know anything about the prices at which electric light properties are sold in this State or anywhere else in the United States. He doesn't know anything about the dividends and prices for electric light stocks. But yet he does not hesitate to value the electric light plant, both structurally and in connection with its franchises.

Finally, he was asked upon the stand by Mr. Brooks to give

the contents of a written contract, the Commissioners letting it in upon the statement of counsel that there was no contract in writing. It afterwards turned out that that statement was erroneous, doubtless made by Mr. Brooks through inadvertence, because we produced the contract and put it in; and then something else appeared, Mr. Chairman, of a more serious nature, as affecting the credibility of Mr. Green's testimony. It appeared that he had grossly misstated the contract for the purpose of justifying some of his high values of water power.

Then came Mr. Tower. Mr. Tower was the valuer for the Paper Trust, and he had never valued water power except for that concern, which was formed just about the time that this case was begun. He based his valuations of non-permanent power for the Paper Trust upon Waters's statement to him that the Company had actually got \$1,500 a year for that class of power. Concerning these statements I shall have something further to say in a moment, but that was the basis of Mr. Tower's valuation for the American Writing Paper Company, which he incorporated into his testimony in this case. He had never made any valuations, he says upon cross examination, for anybody but the Paper Trust. That disposes entirely of Mr. Tower's qualifications to testify to the value of water power in this case, but I desire again to refer to the testimony which he gave in rebuttal, in emphatic corroboration of the evidence for the City as to the proper quantities to allow for excavation and foundation work for mill work in Holyoke, and as to the price for which lumber can be bought wholesale for building purposes in that city.

(Recess.)

## AFTERNOON SESSION.

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Mr. MATTHEWS. Mr. A. F. Sickman was the last witness, or practically the last witness, produced by the Company in support of its case in chief, and the only witness produced who knew anything about the Company's water power. He was kept back, withheld from the witness stand until the close of their case; and it was, therefore, not until his testimony went in that the City was able to ascertain the facts about the use of power for the electric light plant.

Mr. Sickman testified with great frankness to the practices and uses of the Company in respect to its different classes of water power, and also with regard to the power used at the electric light plant. But it certainly is a singular thing, Mr. Chairman, that the man in charge of the Company's water power transactions does not know how much the Company is getting for rent on its non-permanent power.

Mr. Gross says, when excusing himself for not knowing, that Mr. Sickman ought to know; but Mr. Sickman himself, as I recall it, disclaimed any knowledge of the subject. Mr. Gross was put upon the witness stand in Vol. VI., but withdrawn because he was unable to qualify; and he resumed the witness stand in Vol. VIII. for the purpose of explaining the Company's amended offer with respect to the electric light plant and the water power to run it. Mr. Gross, I think, endeavored to create an impression of fairness when he was testifying, or rather explaining,—because he did not testify to anything,—in Vols. VIII. and IX. But Mr. Gross's apparent fairness disappeared the moment any embarrassing questions were asked. He did not know, for instance, what the Company was getting for non-permanent power. At least, he said he did not know, although, according to the contention of the Company as put into this case through their expert witnesses, there was a regular, current, going price or rent for

non-permanent power in Holyoke. Mr. Gross does not know what the Company is getting, and does not know whether or not there is a regular price. He said Waters, Sickman, or Winchester ought to know what it is; but Waters and Winchester were not put upon the witness stand, and Sickman said he did not know.

Finally Mr. Gross was induced to look into the matter himself, and to report to the Commissioners at a later period the exact leases and rents received by the Company for its non-permanent power. He does not, however, state the transactions correctly. He misstates, for instance, the circumstances relating to the Mackintosh affair, which was the only lease of non-permanent power which on the face of it figured up to more than \$600 a year for 24-hour power.

Now the facts were that there was a collateral, secret agreement, concerning which perhaps Mr. Gross had no knowledge, an agreement which was finally secured and put by us into the case, which showed that the power they were getting was not non-permanent power in the ordinary sense, but something different and presumably more valuable. He was then asked if he could not explain why it was that if, as the Company claimed, \$1,500 was the going price for mill power for its non-permanent power, the Company had never got over \$600 a mill power, except in two cases, the Crocker and the Dickinson, and why in those cases all they got for everything but the first three mill power was \$600. Mr. Gross said he could not explain; he would endeavor to do so, to ascertain the cause or reason and report to the Commissioners. He made that promise on three several occasions, on pages 122, 126, and 130 of Vol. IX. But although he testified, or occupied the stand, rather, giving explanations, upon subsequent occasions, he never furnished that information to the Commission.

Finally, to conclude this brief summary of the eccentricities of the individual witnesses, I will call attention to Mr. Rivers, who, in his schedule of valuation, estimated the cost of brick-work at from \$10 to \$18 a thousand, according to circumstances; but he had actually done work for Landers, according

to the bills produced in this case, for less than \$10 a thousand, for the same class of work at the same time. And worse than that, when Mr. Anderson was engaged in preparing his schedule for this case, he went to Rivers to ascertain the cost of brick in Holyoke, and Anderson says that Rivers told him the price was \$9 and \$10 for lime and cement laid brick, respectively.

I have not in this brief summary attempted to direct the attention of the Commissioners to the intellectual eccentricities which characterize the testimony of the witnesses for the Company upon the subject of water power. That is a branch of this inquiry we have to speak of by itself. I have alluded to it at various stages of this argument, indicating in the first place how all the original valuations of water power were put into the case by the Company, upon hitherto unheard of theories and grounds of valuation, and I have suggested that the Commissioners would be interested to note the manner in which the witnesses for the Company were obliged to skip from ground to ground, to pass from inconsistency to inconsistency, to work from fallacy to fallacy, until they were finally driven in the fourteenth and fifteenth volumes of the evidence in this case to value the water power upon the right theory, although they then took the wrong facts. That matter will be gone into more at length by Mr. Green, when he comes to discuss the evidence upon the question of water power in detail. The figures of these witnesses upon the question of water power are more peculiarly and luminously illustrated by the evidence of Mr. Allen and Mr. Whitham. You can take these two gentlemen, from the beginning of the case to the end, follow them from gyration to gyration, from contortion to contortion, and see how they are obliged to abandon one position after the other ; and, Mr. Chairman, if it is a tedious, it is at least an amusing, process in the end.

Who ever believed in the preposterous theories of valuation for which my friend Mr. Allen has made himself conspicuous in this Commonwealth, and in which he finds an able coadjutor in the personality of Mr. Whitham, of Philadelphia? No court or commission has ever followed them. They testify from case to

case, always on the high value side of water supply and water power cases, but no commissioners ever relied upon their evidence and no court would sustain any commissioners in doing so. These gentlemen, or, rather, the theories which they invoke for the value of water power, are as completely discredited as was the attempt of my brother Goulding in the *Tremont & Suffolk Mills* case to take the value of the land for any purpose and add to it the value of the buildings for the purposes of their use.

No case can be found where a decision of fact or of law rests upon the theories of valuation that have become associated with the name of Mr. Allen. But it remained for this case, Mr. Chairman, to present the opportunity for a totally new theory of valuation, applicable to water power, but of which no human being ever heard before. You can read the evidence in every water power case that has been tried in the United States of America, and you won't find anywhere any attempt by any engineer, however intellectually unscrupulous, to magnify the value of water power by basing it upon the cost to produce steam power in a particular steam plant admitted to be costly to operate. And yet that is the fallacy upon which the case for the petitioner here was originally founded. It was a fallacy which I say is new, invoked to meet the exigencies of the Holyoke Water Power Company in this case. No court of law, it seems to me, ever witnessed such an array of intellectual perverts as have been upon the witness stand in this case; skilled to the last degree in the arts of duplicity, and wholly wanting, Mr. Chairman, in any sense of professional conscience. Nobody ever paid any attention to them before, or will in this case, when to meet the peculiar necessities of the Holyoke Water Power Company they have been obliged to invent a new theory for the valuation of water power, a theory which is still more untenable than any that has hitherto been associated with the names of Allen and Whitham.

Now, having said what I have deemed it my duty to say concerning the lack of professional honesty—because no other



word can fitly express it — on the part of these gentlemen, one and all, with the exception of the employees of the Water Power Company, Sickman, Snow, and Winchester,— having said what I thought it was my duty to say respecting these witnesses and the monstrous theories which they have evolved for application to this case, I want to say a word in their behalf. I cannot acquit them of a lack of what I have called professional conscience, because it was their duty, Mr. Chairman, to follow the knowledge that they possessed, and to value property in accordance with what they know to be the correct rule of valuation. It was Mr. Prichard's duty as an honest man to take into account the fact that he said ought to be taken into account in valuing the gas works; namely, the cost to manufacture gas in the holder. It was Humphreys's duty to take the same into account. It was Wright's duty to take the cost of operation into account in determining the value of the electric light plant, because he, as well as Humphreys and Prichard, admitted that the cost of operation was a necessary factor in the valuation of a manufacturing plant.

I don't charge these gentlemen with not knowing the correct mode of valuation. I charge them with suppressing their knowledge at the request of their clients. And therefore, Mr. Chairman, the chief responsibility for the inordinate length to which these hearings have been protracted and the extent to which you have been compelled to listen to untenable theories of valuation, rests with the employers of these gentlemen, and not with these witnesses themselves, who, if left to themselves, would have doubtless applied what they knew to be the proper theories of valuation, and would have reached wholly different results, with which we might, perhaps, have agreed.

The responsibility for the mode in which this case has been tried, the responsibility for these different theories of valuation, each more untenable than the last, rests, Mr. Chairman, with the Holyoke Water Power Company and its officers. I cannot acquit the witnesses for not having stood up for what they knew to be the proper mode of valuation. I cannot assume for them what they evidently did not possess, an acute professional conscience ;

but I can acquit them of some responsibility for the intellectual absurdities into which they have been induced to fall during the progress of this case.

In passing I might note that even Mr. Allen, even Allen, the highest valuer in the world of anything, knows perfectly well what the way to value water power is, says so on cross examination, and admits that he did not apply that system to this case, because he was informed that the proper way to value the water power in this case was upon the assumption that the City had got to take the Company's steam plant, anyway, and therefore that the value of the water power was to be determined upon a comparison of the cost to run the plant by that particular auxiliary steam plant. Allen goes on to explain that the way of valuing water power ordinarily is by erecting in your mind a standard commercial steam plant, a steam plant operating under normal commercial conditions, with say Corliss compound condensing engines, and then estimating from that factor and the cost to operate it how much you can afford to pay for water power which will give you an equivalent result. Why Mr. Allen didn't apply that theory to the valuation of this property is explained by himself in cross examination,—because he was instructed not to; or, rather, because he was informed that that was not the way to value the water power in this case.

So, when you come to the land, I will ask you to note the form of Mr. Brooks's questions, disclosing in all its nakedness this untenable theory of reproductive cost, which necessarily leads to a duplication of values. The question he put to every one of his real estate experts—to all three of them—was this: What, in your opinion, was the fair market value of this land, divorced from the buildings on it, divorced from the water power connected with it?—the very question which our Court has said in the *Tremont & Suffolk Mills* case is not the test of the value of land occupied for manufacturing purposes.

If you take the admissions of the witnesses of the Company as they run through the case, consider Mr. Allen's frank explanation of the reasons why he didn't adopt the usual process of valuing water power in this case, and note the exact language of

Mr. Brooks's questions to his real estate experts, you will be forced to reach the conclusion, if there was nothing else in the case than that, that this scheme of valuation is one that has been invented for the purposes of this case, and has been forced by the Holyoke Water Power Company upon its experts. They knew full well, of course, that if this property was valued—whether it be the gas plant or the electric plant or the water plant—according to the ordinary rules and methods of valuation,—they knew perfectly well that if they turned even Allen and Whitham loose upon the problem of water power in this case, and allowed them to work out the value by means of the cost to operate a standard steam plant, they wouldn't get the values that went into this case. They couldn't get any evidence in support of them. Therefore, Mr. Chairman, they invented for the purposes of this case, or they applied, rather, to this case, the theory which Mr. Goulding himself tried to work into the *Tremont & Suffolk Mills* case, and which the Court had rejected in the most emphatic language. They instructed their witnesses to disregard all considerations of mechanical utility, or of the relative suitability of the different parts of the plant to each other, and to base their value simply and exclusively upon the cost to create a new plant, identical in all its parts with the Company's plant, less such small allowance for depreciation due to wear and tear as they could conscientiously agree to.

Then, when you come to the question of water power, the Company, for some reason or other, made up its mind that it wouldn't offer its water power for valuation under the statute, but would offer it at a price they never obtained before; namely, \$1,500 per annum per mill power. They told their experts that the way to value their water power was not, as is customary in such cases, by comparison with the cost to produce an equivalent standard steam plant, but according to the cost to produce an equivalent amount of steam power at this particular auxiliary steam plant. And if the Company had a worse plant, they would have selected that for the purpose, because upon that theory the worse a plant is, the less efficient it is, and the more expensive to operate, and the higher the resulting value of the water power.

Now, Mr. Chairman, that wasn't the whole of this scheme. In order to have it work, something else was necessary. So far as the application of the theory of reproductive cost to the buildings and machinery and the land, I have said all that I care to say. That was a complete theory in itself, easy of application, — the easiest thing in the world, — but legally and practically untenable. All that I have suggested so far as to the scheme of the Water Power Company with reference to its water power would not by itself have done the business. They might have instructed Mr. Allen and Mr. Whitham and the rest of them, as they did, to base the value of this water power upon the cost to produce an equivalent amount of power by steam at this particular steam plant, and to ignore the fact that the operation of the plant by water power would be burdened with the extra cost to carry the investment involved in the auxiliary steam plant. They might have given those instructions, and Mr. Allen and Mr. Whitham might have gone to work on them, and by means of their facility, acquired by long practice in magnifying quantities and prices, they might have reached a value of \$1,500 per mill power per annum, — and they might not. If there was any doubt about it, Mr. Chairman what would Mr. Allen and Mr. Whitham have done? Mr. Allen told you what he would have done, and he has told what he did do. Mr. Allen would have gone to the officers of the Holyoke Water Power Company, and he would have said, "Look here! What are you actually getting?" "What is the actual market price of non-permanent power in Holyoke?" And if he had been informed that it was only \$600 a year, he would have hesitated before he worked out a price of \$1,500 a year per mill power by any process of mathematical calculation. In fact, Mr. Allen said that the highest price that the Company ever got for water power on the non-permanent basis would have been a limiting or maximum figure for the value of the power in question, and that had he known that the Water Power Company was not in fact getting \$1,500 a mill power, his valuation would have been less. That is to say, Mr. Chairman, they couldn't even have used Mr. Charles A. Allen of Worcester to testify to a value of \$1,500 a mill

power in this case by giving him simply the problem first indicated to work out,—the value of water power based upon the cost to produce steam power at this particular plant. Mr. Allen wouldn't have had the intellectual audacity, even with his facilities for magnifying values and his experience in that regard, to state a value of \$1,500 per annum per mill power, unless he had made inquiries, and had been told by the officers of the Company that they were actually getting \$1,500 a mill power. So that something more was needed to work out evidence of a value of \$1,500 a mill power than a mere specification of the mode of valuation. The thing that was needed was statements of fact, false statements of fact, concerning the amount that the Company was actually getting for its non-permanent power. Those false statements were necessary, and they were forthcoming. They were made by Mr. Waters. Mr. Waters deliberately misinformed every expert witness in this case as to what the Company was actually getting for its non-permanent power. And every witness in this case who testified to a value for that power admitted upon cross examination that he based his valuation largely upon the statements made to him by Mr. Waters.

Now for the proof of that allegation, because, Mr. Chairman, it is a serious one. It is one we desire you to take into account, and if you find it to be sustained by the proof in this case, it is a consideration which you will naturally and properly carry in your minds throughout all your deliberations upon the value of the water power in this case.

Under the circumstances, in response to the natural inquiry of the experts retained by the Company as to what the corporation was actually getting, I don't think we should hold the Company to the fullest disclosure of all the facts. It was hardly necessary, for instance, even from the standpoint of strict integrity, for the Company to explain how it happened to be getting \$1,500 a mill power for three mill powers in each of the Crocker and Dickinson transactions. All that we could fairly have expected the Company to do, all that the experts retained by the Company could fairly expect its officers to do, was to tell them the facts. And a truthful statement of the facts would

have been this : that the Company had never received more than \$600 for 24-hour non-permanent power, and \$4,500 per mill power bonus ; that they had made eleven leases of water power upon the non-permanent basis, and they had never received a greater sum than those two figures together indicate,— \$600 per mill power per annum, and \$4,500 per mill power down ; that in two cases they had received \$1,500 per mill power for the first 3 mill powers, but only \$600 per mill power for the remaining 7 in one case and 3 in the other ; that in neither of those cases was any bonus paid ; and finally, that in every case where non-permanent power had been sold by the Company, substantially ten or eleven thousand square feet per mill power had been either sold at the time or was previously in the possession of the lessee.

That would have been a strictly accurate statement, so far as it went. It wouldn't have disclosed the whole truth, Mr. Chairman, because it would not have indicated to the experts that the \$1,500 per mill power which the Company received for the first 3 mill powers, in the two transactions, was due to other considerations, which we will consider at the proper time, and had no bearing on the market value of non-permanent power in Holyoke. But I am prepared to concede, for the sake of the argument, that if they had simply stated the facts, without disclosing the reason for the discrimination in the Dickinson and Crocker leases, the experts for the Company could not fairly have complained that they had been deceived. But what were the statements made by the Company? Let me read them to you.

W. H. Foster, in the first place, says that he assumed a charge for water power of \$12,000 a year, or \$1,500 a mill power, because he and Mr. Humphreys were informed by the officers of the Company that that was the price actually received,— \$1,500 per mill power, without any qualification.

Mr. Humphreys stated that they investigated the Company's charges for that class of power, and found it to be \$1,500 a mill power. He didn't investigate the leases. If he had, he wouldn't have reached any such conclusion. He must have inquired of the officers of the Company, and had been told by them that they received \$1,500 a mill power. That is what he said :—

"I inquired of the Company as to the regular rate for such power. We made no examination as experts into the value of this power; we simply made inquiry as to what the Company was charging in their regular business, and took that rate."

Now, Mr. Chairman, that was put in Vol. I. of this testimony before any of these experts took the stand to testify to the value of the water power, and from that time until we got the leases and got the facts out of Mr. Sickman and Mr. Gross there wasn't anything in this case to indicate that the Company had not been receiving \$1,500 per mill power right along for their non-permanent power.

The first expert on water for the Company was Mr. H. A. Foster. He stated that the fair market value of water power was \$4,500 down and \$1,500 per annum per mill power; that he knew nothing about water power in Holyoke, except the statements made to him by the officers of the Company; that all the information he had upon the subject came from them; that he was told by them that the Company was getting \$4,500 down and \$1,500 a year a mill power,—an absolutely false statement upon any construction of the Crocker and Dickinson leases,—and that this information, Mr. Chairman, was the basis of his valuation. Mr. H. A. Foster was the first man put upon the witness stand by the Company to work out the value of water power. He didn't dare rely upon the theories suggested by counsel for the Company. He went straight to Mr. Waters and Mr. Winchester and asked what was the going market price, and he was answered falsely.

Robb was the next witness for the Company, who testified that \$4,500 bonus and \$1,500 a year are reasonable prices, in his opinion; that this opinion was based upon such information as he could get as to what was being actually paid for non-permanent power in Holyoke; and that he was told that leases had been made at these prices.

There never was a lease at any such price as that combination of \$1,500 and \$4,500; the statement was false. He says that several of the witnesses assured him that these were the prices

regularly paid in Holyoke. Mr. Robb is not the only witness for the Company who says he was deceived by the other witnesses for the Company. But I want to acquit them of intentional insincerity in this regard, because they were themselves deceived by Waters. The whole responsibility for this elaboration of falsehood and for the preposterous valuations that are based upon it rests with Mr. Waters and his associates, the officers of the Holyoke Water Power Company. It should not in my judgment be visited upon the experts in this case.

Newcomb, giving the same values, says that his opinion is based upon the fact that power was being sold at these prices, and that he relied upon statements made to him upon this point by the officers of the Company. He is the next man,—I am going through every one of them, Mr. Chairman. There is not a witness in this case who testified to these exaggerated values who did not base his opinion upon false statements made to him by the officers of the Company as to what the Company was actually getting.

And I now come to Mr. Allen, to whose efforts to obtain information upon the subject I have already alluded. He gave the same figures as all the rest of them did, but he says he based those figures in part upon information received from the Company that they were actually selling power at those prices; he made inquiries as to what was being paid, and he says he was told that this was being paid. He says this was one of the important facts that he took into account in forming his opinion of value, and if he had understood that the Company was in fact receiving less, his opinion would have been materially affected. And finally he says that the maximum price that the Company had actually received would, in his opinion, fix the actual value of water power. We do not agree with Mr. Allen that it was the maximum price that the Company had been able to get, but it was the current price that they were able to get. Mr. Allen is a high value man, and with a reputation to sustain in that regard was anxious to get the highest figure. But Mr. Allen was honest enough to say that he would not go beyond that. He would not have gone beyond it, if he had not been deceived; and he was intentionally deceived by Mr. Waters and his associates.



The last water power witness that was put upon the stand was Mr. Tower, and I call your attention particularly to what happened to poor Mr. Tower. He was employed about the same time that this case began to value the mills that were going into the American Writing Paper Company, and he said that he valued this non-permanent power for that purpose and for that occasion. He said he fixed his values because he was informed, by the officers of the Company, that they were in the habit of asking and getting \$1,500 for their non-permanent power; that he was informed that the Crocker and Dickinson Companies were paying \$1,500 for all their power,—not simply for the first three mill powers. Now that, Mr. Chairman, was the way in which the American Writing Paper Company was organized; and when we consider what the actual facts of the case were, it is not difficult to see why the stock of that concern is selling at the present prices.

Mr. BROOKS. Is that in evidence?

Mr. MATTHEWS. I think Mr. Appleton had something to say on that subject.

Mr. BROOKS. I guess he didn't. But then, I don't care; I would just as lieve you would argue on what is not in evidence as on what is.

Mr. MATTHEWS. I said the witnesses for the Company misinformed each other. Robb was misinformed by Newcomb and Green, and Tower was misinformed by Dickinson. But I do not attribute any dishonesty to the witnesses. They were honestly deceived by one another, as they were dishonestly deceived by Mr. Waters.

Now, Mr. Chairman, I ask you to consider the enormity of this offence. A large part of this case, a large part of the fifteen volumes of printed testimony, has been devoted to a cross examination of these men who have come into court and sworn that this power was worth \$1,500 per annum per mill power, and it has turned out that those valuations were based upon deliberate, intentional falsehoods, made by the treasurer of this corporation to those witnesses. Mr. Waters knew that those men, being left to themselves, could not reach a valuation of

\$1,500 per mill power for water. He knew that the Company had never been able to get more than \$600. He told them what was not true, and anybody in the position that Mr. Allen or Mr. Whitham or Mr. Green or the rest of them, under those circumstances, would, unconsciously perhaps, shape his calculations so as to come out somewhere near the price which we were informed the Company was actually getting.

That, Mr. Chairman, is the way in which the Company got these exaggerated valuations into this case. It was by reason of this process that this case has been protracted and delayed to this inordinate length. And we ask you, with the greatest confidence, to condemn this method of litigation, this peculiar method of preparing a case for trial in a court of law, not only by rejecting, without consideration, or without any more consideration than is needed for the purpose, these preposterous valuations, but also by saddling the cost of so much of this inquiry as has been caused by the testimony of these gentlemen on the value of water power, exclusively upon the Holyoke Water Power Company, discharging and absolving the City of Holyoke from paying any portion of it. And when you review this testimony in this case, you will find that an enormous percentage of it is founded upon these untenable theories, backed, supported, and corroborated by the falsehoods told by Mr. Waters as to what the Company was actually getting.

Now, Mr. Chairman, that is not all. A more reckless exhibition of false testimony — not intentionally false, but necessarily false because based upon purposely misleading data — is due to the attempt of the Company to misstate to their experts the manner in which the lessees of water power were treated with respect to the days of restricted use. Every one of those experts assumed that all those lessees were treated upon a parity, alike. Allen says so and all the rest of them say so. Allen again is frank enough to admit that if he had known that there was a disparity of treatment, or if he had been told that he was to value the water power upon the theory that there could be priority of right in respect to user, his valuations might have been materially affected. But he was told, Mr. Chairman, as he himself

says, that they were all treated alike. Now that was not true. That was just as false a statement as the other. The evidence is conclusive in this case that in the year 1899 there was a disparity of more than 50 per cent.—just exactly 50 per cent.—in the number of restricted days between the prior and the subsequent lessees of non-permanent power upon the first level canal. And Mr. Sickman tells you the reason with frankness,—that the earlier lessees had the prior right.

That is not all. Even giving Allen and Whitham and the other experts the benefit of the theory of valuation from which they were instructed not to depart, and even after misleading them as to the facts of the case with regard to actual sales of water power, the Company did not stop there, but it misinformed its experts in regard to the average load upon the electric light station. H. A. Foster and others were told that the average load upon the electric light station was 231 horse power. It appeared that that was the load for Jan. 9, 1899, one of the darkest days in the year and one of the days of heaviest consumption. Mr. Winchester tells us that the average load in summer was very much less, as of course it must be, and the evidence is uncontradicted that the average load was something under 200 horse power, taking the year as a whole. That was proved by us and not disputed by the other side in rebuttal. Our figures were substantially accepted by Mr. Allen and Mr. Whitham when they came upon the witness stand in rebuttal. But the whole case for the Company in chief, Mr. Chairman, was prepared and put in upon the theory of an average load throughout the year of 231 horse power, or 10 per cent. more than it actually was. That is a small matter, but it makes considerable difference when you come to figure out the cost of water power in this case. It makes a difference of \$100 or \$200 per mill power.

Finally an attempt was made with characteristic disingenuity to mislead all the witnesses for the Company as to the current prices for materials in Holyoke. I don't know whether the Commissioners noted the peculiar ingenuity of this scheme. Mr. Waters and Mr. Winchester, in the secret recesses of the Hol-

yoke Water Power Company's offices, prepared a list of materials and prices, and furnished it to Mr. Nettleton and the other witnesses for the Company, all the experts from a distance. It is printed in Vol. III. The witnesses were told, as they say, by the officers of the Company that that was a correct list of prices current in Holyoke. Mr. Nettleton says that and others do; Sherman, I think. Mr. Chairman, would you believe it, — you would not believe it if you had not sat through this case, — that, notwithstanding that price-list was given to all the experts for the Company and was used by all of them who came from a distance and formed the basis of their opinions of the reproductive cost of this plant, no attempt was ever made from Vol. I. to Vol. XV. of this case to prove that price-list. There is no evidence in this case that any single figure in that price-list represents the actual value of labor or materials in Holyoke in January, 1898, or at any other date. They simply loaded up their expert witnesses with a false statement — because we proved conclusively that these figures and prices were wrong — a false statement or price-list of materials and labor for the purpose of inducing these gentlemen from a distance, who had no personal knowledge of conditions in Holyoke, to reach a higher figure for the reproductive cost of this property than they otherwise would. And that effort, as in the case of the water power, was successful. It is conceivable, of course, that the Company may have thought when this list was prepared that it was correct. It is conceivable that they may have intended to prove it. It is conceivable that as the case went on they found they could not prove it, and therefore made no attempt to do so. Therefore I will not charge the preparation of this price-list upon the officers of the Holyoke Water Power Company as a deliberate falsehood intended to mislead the Court, as I do say was their purpose in the matter of the misinformation furnished their expert witnesses respecting the actual sales of water power. But I say that the exhibition of this price-list to these witnesses was a characteristic effort on the part of the Company to affect their own witnesses and thus mislead the Court. It succeeded so far as the witnesses were concerned, but it will not succeed, I appre-

hend, so far as the Commissioners go. We met that price-list piece by piece, item by item, and have proved by actual bills and from the Company's witnesses themselves that it was erroneous from top to bottom; that it represented yard prices, detail prices in small lots, and did not represent the current going prices for building material furnished on a large scale in the city of Holyoke. And no attempt has been made to meet that process of destruction. No attempt was made in rebuttal to rehabilitate this price-list, any more than any attempt was made in the evidence for the Company in chief to support it.

Contemporaneously with the purpose of the Company to magnify the valuations which it sought to impose upon this tribunal by deceiving its own witnesses, and thus inducing them to testify to higher figures than they would have given if they had known the facts, is the effort, the persistent although finally unsuccessful effort, of the Holyoke Water Power Company to withhold from inspection by this Court, and from use by the City of Holyoke, one of the parties to the case, of their leases and agreements relating to the sale of water power.

You will remember the difficulty we had to procure those leases. You will remember that counsel for the Holyoke Water Power Company declined to produce them at several stages in the proceedings. You will remember that we had to issue summons after summons on them before we got any of them. You will remember that finally we got the recorded leases into the case, and then it appeared that the bonus was not set forth. You will remember the difficulty that we had in extracting information concerning the bonus paid in these various cases. You will remember the persistent statements made by counsel for the Company over and over again,—and I am willing to admit that he was deceived along with his experts, because I am unwilling to charge any member of the Massachusetts bar with being personally responsible or accountable for this scheme, or conspiracy I might call it, to deceive the Court,—you will remember how he stated over and over again that \$1,500 rent and \$4,500 bonus was paid, and then you will remember that when we got the leases, and when we got a disclosure from him of the bonus paid

in every case, we found there wasn't one where \$1,500 rent and \$4,500 bonus was paid.

Then we went into the matter further. We found,— I won't say how, — but we suspected that these leases and the statements of Mr. Brooks did not disclose the whole truth; and we called for such other collateral or secret agreements as might have passed between the parties. You will remember the opposition there was to producing them. You will remember the long argument that we had about them, and you will remember your final decision that we should have them. Then they were produced and read in court, and in every single case it appeared that the lease of non-permanent power had been accompanied by a written, contemporary, but unrecorded instrument, which enlarged the rights of the lessee by various considerations and privileges which amounted to a large sum of money when translated into dollars and cents.

Mr. BROOKS. Were those put in evidence?

Mr. MATTHEWS. They were in evidence; they were read in this court room by me, every one of them.

Mr. BROOKS. Were they admitted in evidence,— the so-called secret agreements?

Mr. MATTHEWS. They were. They were read and numbered in the case as exhibits, as you will find by looking. They were read by me personally, standing where I now stand in this court room.

The CHAIRMAN. Weren't you standing in the court room in Springfield?

Mr. MATTHEWS. No, sir, it was right here. I remember the time we put those leases in. It was here, I am quite confident about it. I will call your attention to one of them only. Every one was of pecuniary value. Some of them ran forever, some of them were temporary only; but the secret agreement in the Crocker case gave them the benefit of a rebate amounting to over \$8,000. In the Dickinson case it could be figured out at a substantial sum. The one I desire to call particular attention to, however, is that relating to the Mackintosh transaction. Poor Mr. Gross had been induced to take the witness stand, and

to tell your Honors that non-permanent power in the Mackintosh case had been rented, upon a rent reduced to a 24-hour basis, at \$750 per mill power. And so it had, according to the lease which Mr. Waters had given him, but Mr. Waters had not given him the facts. I do not charge Mr. Gross with any intention to deceive the Court, but I know perfectly what Waters was up to. He wanted to get before this Commission the fact, through Mr. Gross, that they had in one case got over \$600, and this was the case, and this was the way it was brought before your Honors' attention.

But what was the secret agreement in that case? An agreement allowing them in perpetuity to substitute night power for day power, almost converting their power into permanent and manifestly enhancing its value. The correspondence in that case is printed in the evidence in full, and you will see from it that Mr. Mackintosh attached value to this agreement and was willing to pay the rent which the Company asked in consideration of his getting this extra and special agreement, and not otherwise.

I have already referred to the agreement with the Street Railway Company. That is a small matter, of only incidental value, but it illustrates again the methods of the Holyoke Water Power Company in the preparation and trial of this cause. A witness was produced and put upon the witness stand by the Company, Mr. Green, and was asked by counsel for the Company as to the terms of a contract that had been entered into between the Holyoke Street Railway Company and the Holyoke Water Power Company. We objected on the ground that there was a written instrument, and that he should not be permitted to state the contents of a written instrument unless every effort had been made to produce the original or a copy. It was stated on behalf of the Company that the agreement was not in writing, and on the faith and credit of that statement Mr. Green was permitted to state, or rather to misstate, as it turned out afterward, the contents of that agreement. We finally procured the instrument itself and put it in, and it showed a totally different arrangement in every particular to that which Mr. Green had testified to.

The CHAIRMAN. Are you reading from anything in particular?

Mr. MATTHEWS. No, I am not reading from anything. I have been following the first part of part 2. What I have said is in substance, although in more condensed form, printed in the brief. I will state here that generally my argument has followed the usual course, that of amplifying the more condensed statements of the printed brief.

Now, Mr. Chairman, a word on the apportionment of costs. There is no practice binding upon the Commissioners in this case. I apprehend that the apportionment of costs lies within your discretion. Various practices have obtained in similar cases. Sometimes the costs have been divided. Sometimes, in the ordinary and simple case, they have been charged upon the respondent,—upon the party acquiring the property. In some cases they have been divided more or less equally. In this case we ask the Commissioners to charge at least three-fourths of the costs upon the Holyoke Water Power Company, and we prefer that request with great confidence. We ask it by reason of the time, the labor, the delay, and the expense thrust upon the City of Holyoke to defend this case, due to the untenable theories of valuation, which this Commission I assume will disregard, which were advanced by the Holyoke Water Power Company through its experts. I base the request upon the inordinate amount of time which was necessarily devoted by the City of Holyoke to an exposure of the falsehoods which had been told by the officers of the Company, and which were the basis of the valuations made by the Company's experts of the water power involved in this case. I ask it by reason of the deliberate purpose of the Company to deceive the Court by deceiving its witnesses, and by concealing important evidence from inspection by the City and from production in court. I refer also to the enormous amount of space devoted by the Company, and to some extent therefore by us, to a consideration of the valuation of the Company's franchises, business, and good will, with which this Commission has in law nothing to do. For all these reasons



we suggest that at least three-fourths, preferably more, of the expenses of this case, so far as the Commissioners have power to apportion the same, be assigned to the Holyoke Water Power Company, the petitioner.

Now, Mr. Chairman, in passing on the burden of this argument to my associate I desire to repeat the statement which I made in opening, that in a case which has been tried at this length, in a case that has been tried with this care, in a case that has been listened to with this patience by the Court, in a case involving a valuation of property, which is subject to appeal according to the terms of the statute, both upon the facts and upon the law, we submit and request, with all the earnestness of which we are capable, on behalf of our clients, the City of Holyoke and its inhabitants, that this cause should not result in a mistrial; that this case should issue forth from these Commissioners into the court in such a shape that the Court itself can pass upon all the questions of fact or law which either party desires to raise, without involving the additional expense and delay of a new trial before the Court. And this end, Mr. Chairman, can only be accomplished if the Commissioners will devote such time and labor and patience to a study of the briefs, arguments, and evidence in this case as will permit them to pass definitely and formally upon every request for a finding of law or fact preferred by the City of Holyoke. Only in that manner can this case come into the Supreme Judicial Court, if it ever gets there, in such shape as will obviate the necessity of a retrial.

I suppose such requests are often made in cases tried as this case is, and they are not always followed. A case involving a relatively small amount of time which is tried before the commissioners does not necessitate the careful findings as to subordinate facts that a case of this magnitude does or ought to. We ask that in this case, at least, the Commissioners will take the time to make a special finding upon every question of fact or law which either party may suggest, particularly upon every question of fact or law which the City of Holyoke may raise, in the manner which I have indicated it will in the final copies of

the brief as submitted to the Commissioners and counsel for the Company. Only in that manner, Mr. Chairman, can the expense and time devoted to this cause be justified. I won't say justified simply to the people of Holyoke, but justified to us as lawyers. My associate and myself therefore look forward with confidence to such a report from this Commission as will prevent either party from taking the case upon the facts beyond the decision of this tribunal, and that result can only be attained by special findings upon every request relating either to a matter of law or a matter of fact, however incidental or collateral it be, that may be preferred by either party. And, Mr. Chairman, it is needless to say that we look forward with equal confidence to a finding by these Commissioners which will do exact and even justice to the great interests represented by the respective parties to this suit. We expect that this cause will be considered with the same care with which it has been argued. And we have the greatest confidence that the Commissioners, in reviewing the testimony in the light of the oral arguments, and assisted, as we think they may well be, by the arguments presented in print, will be unable to avoid the conclusion that the contentions of the City in this matter are substantially correct, and that the award finally reached by your Honors should coincide, both with respect to the questions of law and the questions of fact, with the arguments that have been presented to you during the past four days.

I will simply sum them up in closing. As to the gas plant, we ask you to find the facts relating to title, and to express an opinion one way or the other as to whether the City is bound as a matter of law to take the gas plant at all, under the circumstances which you find to exist respecting the title to the land which was stolen from the river.

As to the value of the gas plant as a whole, we ask you to find that its fair market value as a going concern for the purposes of its use, in January, 1898, was not over \$200,000, and that there should be allowed from that a depreciation of at least 5 per cent. per annum for the whole period that will elapse between the day of valuation and the day of transfer, less such sum as the

Company may be entitled to, to be determined upon a supplemental hearing or inquiry, for such additions or improvements as it may make to the plant in that same period.

As to the electric light plant, we ask with equal confidence that you decline to include the water power in the transfer at all, for the reason, first, that it is not offered by the Company for valuation, and, secondly, for the reason that you have no right to impose a perpetual burden by the way of rent upon the City of Holyoke ; that is, we ask you to eliminate the water power from this case, as offered.

We then ask you to omit the water power plant from the transfer, unless the Holyoke Water Power Company shall tender to the City of Holyoke a deed of the water plant and a conveyance or lease of water power sufficient to enable the City to run the plant, in substance, on the terms in the form indicated by us in our brief, on page 262 ; that you find that the value of the water plant, in case it is to be transferred to the City, that is, in case the Holyoke Water Power Company will tender water power upon the terms indicated, as somewhere in the vicinity of \$60,000 to \$65,000, and that the value of the remainder of the electric light plant, that is, the station proper, the steam plant, and the distribution system, is between \$70,000 and \$80,000 ; meaning in both cases the fair market value of the property as a going concern, for the purposes of its use, in January, 1898. Your award, therefore, for the electric light plant should consist, we think, of \$70,000 to \$80,000 for the electric lighting station proper, and the electrical apparatus that is appurtenant to it, and to a conditional award of from \$60,000 to \$70,000 for the water plant, provided the Holyoke Water Power Company tenders to the City a lease of water power substantially upon what is known as surplus terms, the City paying for the water as measured, according to the draft of lease which we have prepared ; and that in each case a reasonable annual allowance for the depreciation which will take place in the plant between the day of valuation and the day of transfer be awarded, the Company to have the benefit of such additions to the plant as it may make between the day of the valuation and the day of

transfer, the value thereof to be determined upon a supplemental inquiry.

I thank you, Mr. Chairman and gentlemen, for the courtesy and great attention which you have paid me during this long argument. My only apology for addressing the Commission so long is the great length and difficulty of the case itself.

**EIGHTY-NINTH HEARING — Continued.**

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**CLOSING ARGUMENT FOR THE CITY OF HOL-  
YOKE ON THE FACTS.**

**BY ADDISON L. GREEN, ESQ.**

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*May it please you, Mr. Chairman, and Gentlemen of the Commission:*

At some point of my argument it will be necessary to deal with the value of the Company's land, and inasmuch as the time allotted this afternoon is short, I think I will take it up now.

Something has already been said on this point in reference to the testimony of various witnesses, but little as to the details of their evidence. You will recall, of course, the site of the gas works. It is downhill, off from any public road, lies between the river and the canal, is irregular in shape, and thoroughly covered with buildings. The situation is such that there is absolutely no possibility of extending the works. If it is desirable to enlarge any part of the plant it must be done either by tearing down and rebuilding the present plant or building elsewhere. It is not possible to buy any land adjacent. The Parsons Paper Company and the water in the canal and the river so hem in the location that it cannot be done. The railroad has a spur track running to this land, but it is difficult of access by teams, the private way that leads to it comes down a hill, and it is quite as devious in its way as has been the method of the Company in trying to work its \$1,500 valuation upon us, for non-permanent water power. And we suggest that these facts must be taken into consideration in finding the value of this land. The Company itself, in its schedule, asks 50 cents a foot for this land.

The petitioner has put three witnesses on the stand to prove that this land is worth more than 50 cents a foot. I suppose that

that was done with the idea of showing the modesty of this Company in the demands which it has made in this case. It is to be inferred that the Water Power Company was not sufficiently grasping when it started out making its schedules, in putting a value upon their own property, and that Mr. Sickman—a gentleman who has sold, as a matter of fact, about all the manufacturing land that has ever been sold in the City of Holyoke—didn't know enough about values to put the last possible dollar that could be possibly claimed for this land. And so three men are called as witnesses to testify here as to the value of this site, as well as other sites.

These men never sold a mill site. They never bought a mill site. They go down to the officers of the Water Power Company, and interview the same Mr. Sickman who valued this land of the Company, and he gives them information which leads them to put a value of more than 50 cents a foot upon this land.

Why didn't Mr. Sickman take the stand and testify here? He is the one man in the City of Holyoke who has had experience in the sale of mill sites. He is in the employ of the Company. He could tell of sales of similar property, and the prices that had been received. And if that land was worth 50 cents a foot he could substantiate it before this Commission. Now Mr. Sickman doesn't testify here, and both sides are forced to go out and get such assistance as they can from ordinary real estate experts.

Of course you understand the situation of affairs in Holyoke is peculiar. The mill land in Holyoke is all owned by the Holyoke Water Power Company, and the sales that are made of mill sites that are not encumbered with buildings are made by the Holyoke Water Power Company. So that the agent of the Water Power Company who has such sales in charge is the one man who knows about such things, and could testify to them.

Now, there is a difference between the experts for the Company and for the City on this point. The Company's experts put a value upon this land anywhere from 40 to 60 or 75 cents a foot, as I recall it. The experts called by the City value it at 20 to 25 cents a foot.

Now, we have two or three facts to be borne in mind, gentlemen, and one is that there have been two or three sales of prop-

erty somewhat similar to this,—the sale of the LaFrance property, a sale which crept in in the course of the evidence; the sale of the City lot, and the sale of the Riverside land, if I may call it so.

The LaFrance lot is a tract of land in Holyoke, as disclosed by the evidence, quite close to the Bridge Street holder,—a large tract of land and the most recent sale that appeared in evidence. It lies on the outskirts of the mill district in Holyoke, in situation and desirability rather better, if anything, than this piece of land, and it was sold during the time that our case was in progress for 12 cents a foot.

The City lot is quite as near the centre of the City of Holyoke as the gas site. It is right in the centre of a large amount of vacant land. And that sold between the same parties, in 1894, for less than 14 cents a foot. It is quite as low—I believe a few feet lower—than the present lot. The land can be divided up as you please. We have suggested a lot of a certain size and shape for the purposes of a new plant, but it is possible to acquire for a new plant almost any area of land in the vicinity of the City lot.

There is another sale of land, the land sold to the Riverside, and that is among the most recent. That was sold somewhere in 1897. In this tract, according to Mr. Appleton, there are about 100,000 square feet. He said himself that the land, together with three non-permanent and two permanent powers, sold for \$43,500. And he says that he paid for the three non-permanent powers \$13,500, so that he paid \$30,000 for the land and the two permanent powers. If those two permanent powers were worth no more than the non-permanent powers, he paid \$21,000 for a hundred thousand feet of land, that is, 21 cents a foot.

You can, by inspection of the map of the City of Holyoke, understand the situation of the Riverside land. You have seen it. It is where the Smith & White and the National Blank Book are now located in Holyoke.

We say that, so far as there is any evidence in this case of sales of property similarly situated, in respect to altitude, in respect to the manufacturing district, the centre of distribution, and in all other ways, that these three sales are comparable, and more comparable than any other sales, with the land in question.

and therefore we ask you to take that fact as corroborative of the statement of the witnesses called by the City, as to the value of that land, entirely apart from its buildings, divorced from its water power, that the land as land is not worth over 25 cents a foot.

While the witnesses for the Company in valuing this land were asked to value it divorced from its water power, they did not in fact do it. An inspection of the evidence—and we call your attention to it in our brief—will show that they did in fact in giving their values of 60 and 75 cents a foot, take into consideration the water power. And one witness, Mr. Corser, when pinned down to this fact and asked to give absolutely the value separated from the water power, changed his figures; he had placed the value at either 60 or 70 cents, and stated that if he was obliged to leave the water power out of consideration he thought it would be 40 or 50 cents. So that it is apparent that the witnesses, while in form answering the question as we understood it, did in fact take other factors into consideration.

The CHAIRMAN. How much land is there in the gas plant?

Mr. GREEN. There is about 85,000 feet of land, if your Honor please, at the main site of the gas works. At the Bridge Street holder there is some nineteen thousand odd feet of land. The latter tract is close to the LaFrance purchase at 12 cents a foot. And here again the witnesses called by the Company give a higher valuation, as I recall it, than that placed by Mr. Sickman in the demand of the Company.

Mr. BROOKS. In the what?

Mr. GREEN. In the offer, I mean, made by the Company of its land, and in the testimony of the witnesses called by the Company who used the prices given by Mr. Sickman, as they testified in their cross-examination.

We claim—and this is a relatively small matter and I do not intend to stop with it but a moment—we claim that owing to the facts set out on page 297 of our brief, that a value of 30 cent a foot for this Bridge Street holder site is ample; that no sales in the neighborhood warrant any greater price, and that the testimony of the gentlemen called by the City should be accepted upon that point. That is, you understand in all this discussion, leaving out of consideration our contention that



this property is to be valued for the purpose of its use, and meeting now merely the evidence offered by the company to the effect that the value of the land, for general purposes, is 50 and 40 cents a foot.

I hardly know what to say in regard to the site of that electric light plant, for I personally do not believe that that land as land is worth anywhere near as much as any witness called by either side has testified. Just look at it. You have a piece of land there that looks like a flight of stairs. You have a little narrow peak clear down at the farther end, stretched out just long enough to get a track to run across it so that you may have title to the land over which the railroad track goes. You have a right of way in front of it, over which you cannot build. You have a right of way running straight down through, not the centre, but nearly the centre of it, on which you cannot build, or at least over which you must build by the use of an arch. You have on the back side of it a big tract of land that must be reserved for light and air. It has under it a flume running down to other land of the Holyoke Water Power Company. It is covered all over with restrictions and reservations as to sewer rights and light and air rights, and I do not wonder that the Holyoke Water Power Company has never introduced a particle of evidence in this case as to what that land is worth as land.

We say, however, that the only evidence introduced on that point is by the City in the evidence of Mr. Wood, Mr. Sullivan and Mr. Gaylord to the effect that it is worth from 40 to 50 cents a foot; that is, leaving out of consideration the water power, supposing that we take the land divorced from the water power, and I say that in the nature of things, considering the preposterous shape of this carved-out piece of land, it is all that ought to be awarded for it. And if that price is awarded it does not seem to me that we ought to pay for what is really a highway in front of our property. I allude to the right of way, so-called, the private road which runs between the canal walls and the buildings, and is reserved for everybody's use—not alone ours, but everybody else's. It is the only way to get to our plant, it is the only way that other people get to theirs, and it seems to me that the city should not pay for that portion of the land.

We have for the sake of convenience, on page 299 of our

brief of the facts, divided this land, because it may be necessary for the Commission to divide the land, and have suggested to the Commission where the division line should run in order to separate the hydraulic plant from the steam and electric plant. The line of division which we suggest will give to the electric and steam plant nearly 35,000 square feet of land and leave for the water plant some 6,300 or 6,400 feet. And we have there tabulated our computations in such a form that you can easily see what we claim in regard to square feet, area to be allowed and prices to be charged.

The Company has claimed that this land is to be valued as a mill site, and that we are to pay for it at the rate of \$4,500 a mill power. They stand apparently upon that contention. Our first answer is, of course, that you must take that, if at all, in connection with the number of mill power that could ordinarily and reasonably be expected to be used in connection with such a piece of land; and the evidence is uncontradicted that four or five is the limiting number.

But what evidence has been introduced in this case that \$4,500 a mill power is the selling rate of mill sites in Holyoke, beyond the mere statement of a gentleman not on the stand and unsworn, made to the witnesses expected to testify? It is true that one or two instances have occurred where mill sites have been sold at a price which amounts to \$4,500 a mill power.

Mr. BROOKS. For bonus.

Mr. GREEN. For bonus; but they are one or two instances out of a large number of instances. They are not the last instances, and they are apparently more accidents than anything else. I shall have occasion to return to this point later in the consideration of water power, but it is sufficient for a passing moment to say this: that out of the 10 or 11 last transactions of the Holyoke Water Power Company, where they sold land and water power at the same time, at the outside two, and I believe, as I am now speaking, in only one instance was there any relation of \$4,500 between the number of mill powers sold and the price obtained. In the case of the Norman, which occurs to me at this moment, which was a sale of non-permanent power exclusively with land, they did not receive anywhere near—no, they received a great deal more, I should say, than at the rate of \$4,500 a mill power, and they sold a very large

tract of land. In two instances there was no bonus charged whatever. In the case of the Riverside, both the first sale and the second sale, there is no relation of \$4,500, so that it seems to me conclusive from the evidence that while it may be that if the area of the land offered is just about right and all other things are harmonious, \$4,500 a mill power might be charged for a sufficient area of land, that ordinarily the land is dealt with as land and the so-called bonus is a payment for land rather than a payment for water power.

But we say that these considerations are apart from the question, and that the land should be valued for the purpose of its use; that is, that the gas land should be valued at what gas land ought to cost in Holyoke, and the electric land at what such land ought to cost in Holyoke. We have introduced some little evidence on this point.

We claim that there is a very large tract of land upon which a gas plant could properly be put, upon or near the City lot. We selected the City lot because there was a transaction between the same parties as recent as the year 1894, and because it is good land, just about the right distance from the centre, and, we think, a good location. It has been objected to that a sewer runs through this lot, and all of the evidence which has been brought to bear upon the suggestion of the City lot has been aimed at the sewer and the nature of the soil. Supposing that is so, it seems to me that is mere nothing as far as our contention is concerned. The sewer does not run all over South Holyoke; the sewer does not run all over the hundreds of acres that lie around the City lot. And it is in evidence that the general value of the land in the neighborhood of the city lot is 15 cents a foot, which is substantially the same amount that the City paid the Holyoke Water Power Company for this particular lot in the year 1894. And we say that the value of such land, perfectly suitable and proper for the purpose of a gas plant, limits the value of this land when you come to put your gas buildings upon it.

(Adjourned to Saturday, December 28, at 10 A. M.)

## NINETIETH HEARING.

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BOSTON, Saturday, Dec. 28, 1901.

The Commissioners met at the Court House at 10 A. M.

### MR. GREEN'S ARGUMENT, *resumed.*

Mr. GREEN. There is a large tract of land about a mile and a half or two miles in the City of Holyoke, along by the river side, which is sufficiently high from the river not to be flooded, even in times of high water, and at the place which has been described as Jones's Point. Land at that point is worth not over five cents a foot, is sold by the acre; and in the opinion of Mr. Main, Dr. Bell and others, is proper land for the purpose of an electric lighting station. We have suggested a certain portion of this land as a site for such a station. But it should be borne in mind that this portion which we have suggested is but a part of a very large tract of land which is vacant, and which is in the market.

We have also suggested a tract of land on the river front, in that portion of Holyoke known as South Holyoke, adjacent to the power station of the street railway company, land which is worth about fifteen cents a foot.

The answer that the Company makes to these suggestions is this: First, that the entire river front is the property of the Holyoke Water Power Company, and therefore it would be impossible for us to get water for condensing purposes; secondly, that the land in question is so low as to be flooded in times of high water. The last contention can hardly be true. Mr. Sullivan, Mr. Wood and Mr. Gaylord, gentlemen of integrity, called by the City to view these lots, happened to go upon their inspection at the very time when the spring flood was at its height, and they say that neither of the sites in question, that is, neither the site at Jones's Point nor the city lot, were flooded. It is true we had some photographs here which some ingenious gentleman had taken, of land somewhere near the site suggested, but in neither case photographs of the sites in question.

I do not think the Holyoke Water Power Company will call the veracity of Mr. Wood or Mr. Sullivan or Mr. Gaylord in question. They will undoubtedly differ from them in their opinion evidence, but I think it will hardly be suggested that either of those gentlemen would testify to this Commission that he went upon this land at the particular time and found it dry, and high above the flood water, if it were not so.

And another suggestion I think is conclusive upon the site suggested at Jones's Point, and that is this, that the land in question is some feet higher than the railroad bed, which is not flooded and has not been flooded.

The second objection is that we cannot get condensing water at either of these sites because the Holyoke Water Power Company has some title to the river front. We submit that you cannot infer that the City of Holyoke would have less success in purchasing land of the Water Power Company or in purchasing access to the river than other people in Holyoke. We ask you to bear in mind that the Holyoke Water Power Company, as suggested by Mr. Gross, sells land just as it sells gas, electricity, and water power and other things; that it is a part of its regular business; and, recall for a moment the fact that the Holyoke Street Railway Company, who were taking power for some years on the wire at the present electric lighting station, gave up their contract, or, to be more accurate, failed to renew it, bought of the same Holyoke Water Power Company land on the river side in South Holyoke, and are producing power by steam at that point.

It seems strange that land which is good enough for the street railway company, good enough for its power station, should not be good enough for an electric light station. They are not flooded, apparently, by water in the spring, and as far as any evidence in this case discloses, they never have to shut down their plant, and one of the lots that we suggest is right beside the Street Railway Company.

Now that land is worth fifteen cents a foot. Is it to be presumed that the City of Holyoke cannot purchase, at any suitable place in the City of Holyoke, land in the open market of a Company that makes a business of selling land? Therefore, taking the highest figure suggested, fifteen cents a foot, we submit that that price is the outside figure which should be adopted in

this case to represent the value of land for gas or electric lighting purposes in the City of Holyoke.

Let us pass now to the contract cost, exclusive of land, of the Company's plant, as of January, 1898. As you may well imagine, it was rather a difficult task to try to arrange the figures and facts in this case in any logical order. One way to deal with them would be to take up witness by witness, pointing out the inconsistencies, perhaps, of their evidence and the mistakes in their schedules. You can easily conceive, however, that such a treatment would result in a brief which would be about as long as the case. Mr. Matthews has suggested that it was necessary to arrange our figures as they have been arranged, in order to get at a value to which to add a proper per cent. to represent the value of the plant as a going concern. There is, however, another and incidental reason for the arrangement which you will find that we have adopted.

Some of the witnesses prepared estimates of a new cost, omitting charges for interest, installation, engineering, and so on. Other witnesses included these items. The witnesses who included them did not use the same percentages for these items. If, then, you should put side by side the computations of the various witnesses, it would be impossible to form a fair judgment of their work. So that, if there had been no other reason, in order that you might see at just what amount the various witnesses figured the cost of the buildings, machinery, and other parts of the plant, it is wise to eliminate the general charges of installation and the engineering and interest during construction, because you will have to determine at some time what those charges should be. They are arbitrary figures. Having eliminated them, you have results which are comparable one with the other.

Mr. BROOKS. Mr. Green, do I understand that these figures for buildings, machinery, and so forth, none of them comprehend contingencies, engineering and the other allowances?

Mr. GREEN. That is correct. We call it "contract cost," because, as has been testified to in this case by the Company's witnesses, it represents the cost of erecting these buildings by any company that, instead of employing a general contractor, itself lets out the work to the mason, the excavator and the car-

penter; moreover, the term "contract cost" was used in the course of the cross-examination by some of the witnesses in the case.

On page 314 of respondent's brief you will find the contract cost of the gas plant. There was very little difficulty in tabulating these figures, because no witness, so far as I recall, whose figures have been used here, had included any charges for installation, engineering and so on. You will notice that this table does not contain the estimates of Randolph, Davis or Allen. Mr. Randolph does not give the contract cost. He gives the reproductive cost; and therefore, it is impossible to use his figures. The same is true of Mr. Davis. He attempts to arrive directly at the present value as did Mr. Randolph; in other words, his results are the reproductive cost. Mr. Allen's figures are left out, because he used the figures, in many instances, of Mr. Randolph, and therefore, his estimate cannot be said to represent the contract cost, and it is impossible to obtain from his estimate his idea of the contract cost of this plant. Otherwise, the estimates of the various witnesses are included. You will notice that Mr. O'Connell's figures, Dr. Amory's figures, and perhaps others, are not in these tables. They are tabulated later when we come to consider the plant in detail. The contract cost of the steam and electric light plant is given on page 315.

We have separated these figures, because we believe that in the end the Commission will have to deal with the hydraulic plant and the steam and electric light plant separately; and for that reason we have separated the estimates and tabulated them by themselves. You will note that on page 315 in the estimates of the contract cost of the company's steam and electric plant we have included one half the cost of the belting and shafting in the basement and tunnel; and, on the next page, 317, where the contract cost of the water plant is given, you will find the other half of the same item. Our reason for this is, as will be more fully explained later, that one half, at least, of the cost of the shafting and belting belongs to the water plant; which has been separated from the dynamo building for the convenience of the Holyoke Water Power Company some 38 or 40 feet, necessitating a tunnel and extra length of shafting; accordingly we consider that one half of that cost, basing our estimate upon

the evidence of Dr. Bell, which has been uncontroverted in this case, belongs to the hydraulic plant, and only one half should be charged to the steam and electric plant.

On page 317 you will find the contract cost of the water plant. It is a very interesting table. The column marked "total" is a very interesting column. There is something fascinating to me about that figure of Mr. Allen's of \$99,377 as the cost of the hydraulic plant, and of \$93,850 as given by Mr. Newcomb; when we stop to remember that, according to the books of the Company, it cost a little less than \$62,000 to build this same plant in 1890-91, when materials were much higher than they were in 1897-98.

These estimates are interesting also when you take into account that Mr. Tower, called by the petitioner, testified that a hydraulic plant of this capacity ought to be installed new in the City of Holyoke in 1897-8 for about \$72,000, and he undoubtedly included in this estimate all charges of installation, interest, etc.

There are many instances in this case where the figures of Mr. Tower, as given in Vol. VI and in Vol. XIV and XV, contradict flatly the estimates of the other witnesses called by the petitioner. In these tables we have taken Landers's and Rivers's figures as they have given them. Properly we might have eliminated the last ten per cent. added by these gentlemen, for reasons which are stated on page 319 of our brief. They have evidently, as revealed in cross-examination, doubled their profits, and the estimate as originally given without the last ten per cent. was obviously high enough to cover the contract cost in this case, because they state that they have added a certain per cent. for final contractors' profits, and that their original figures contain the profit which the sub-contractors would expect to obtain.

I think I could properly suggest to this Commission that a contractor taking contracts of this sort does not obtain a ten per cent. profit on top of a full sub-contractors' profit. What is done in such a case is generally one of two things. Either the sub-contractors make a concession to the general contractor, and the latter gets his profit largely in that way, or the general contractor is a carpenter, a builder, like Mr. Ranger, and he is satisfied with the profit which he obtains in that portion of the



work which is immediately under his supervision, and puts in his figures for brickwork, excavation, etc., at the price at which they are given to him. That was a suggestion made by either Mr. Kirkpatrick or Mr. Ranger, and I think it holds true. But, as I say, we have left the figures as they were given by Kirkpatrick and Ranger. Mr. Landers, whose figures are otherwise rather too low for the purposes of the Company, fills them out by including in the buildings the cost of the wall which is built along the river front, and makes this land possible. He is the only witness who does it. As we shall explain, I think, later, this is improper.

We have re-arranged Mr. Sherman's summary. It was necessary so to do. His whole schedule is a perfect jumble. If any member of this Commission has ever attempted to work out his summary as given in Vol. III, page 90, he found it impossible to make anything of it. He gives only \$24,478 as the cost of his buildings. He has his buildings all mixed up with his machinery. But we think if you take the trouble to figure it yourself from his table, you will find that we have divided it properly.

We have also adopted the first estimate of value given by Mr. Sherman. In about fifteen lines Mr. Sherman puts three distinct and contradictory values upon this plant. But the Company furnish us in Vol. VII an estimate of the cost, or of the value, rather, of the gas plant, and the Company adopted in this schedule offered by them the first value given by Mr. Sherman, and we have assumed that they knew what he meant and we have followed it ourselves. I speak of that to show you that we have not arbitrarily picked out one of the three values that he gave.

It was necessary in the case of Mr. Fowler to make a slight change, because an inspection of his schedule shows that he has included some of the iron tanks in his estimate of the buildings. They belong with the machinery, where we have placed them. We have placed the cost of the tunnel with the water plant. That was done by many of the witnesses, and we believe with obvious correctness.

Now we have started with this contract cost of the gas plant, the hydraulic plant, and the steam and electric plant, and we in-

tend to work out the final value of this plant by again dividing these estimates into tables showing the contract cost of the buildings and of the machinery, the distribution systems of the various plants, in order that we may with some exactness consider the estimates of the different witnesses and study the reason for the differences in their estimates. That is done so that we may find, if possible, just where the differences lie, so that the Commission may pass upon those differences in detail. Otherwise it becomes a question of averaging, and if we average the unconscionable results of some of the witnesses in this case, they become of equal importance with the figures made by witnesses actually trying to get at the proper value of this plant. And if we can point out to you, gentlemen, just where the differences, say, for instance, between Prichard and Stedman, between Fowler and Stedman, lie—I use these simply as an illustration—then you can pass upon those differences and decide whether Mr. Stedman on the one hand, or Mr. Fowler on the other hand, is right. And we find, in analyzing these figures, that those differences are contained in just a few items. It was surprising, when we came to take these tables and compare results, how simple was the explanation.

The first cause of difference in the various estimates which I have called your attention to lies in the quantities. The quantities assumed by the Company's witnesses are much larger, or considerably larger, than those found by the City's witnesses. They contain some obvious and admitted errors, and they are also larger because the Company's witnesses have included in their construction account items which are properly chargeable to the land as land. Some of the differences you undoubtedly have in mind; the piers, for instance, over the tailrace, the foundations that run down to the river bed in the purifying, and other buildings of the gas plant.

Our witnesses had figured the quantities, and had found a different result from that given by the petitioner in this case. The question then arose in our minds, Who is right? Our witnesses, Mr. Ranger and Mr. Kirkpatrick, say that the quantities are thus and so, and on the other hand, Sawin and Walther, the employees of the petitioner, gave other quantities. We did what we thought was fair in the case and what would appeal to the Commission as being fair. We went to a gentleman here in Boston, Mr. Mason, entirely disinterested, a builder, skilled in

figuring quantities, and we asked him to figure over these quantities, and he did it, and his results check the results in all substantial points of Ranger and Kirkpatrick. You will find in the tables which have been put into this case, relative to the electric light plant, showing the quantities as given by Ranger, Kirkpatrick, Sawin, Walther, and Mason, that Mason's brickwork appears to check the estimates given by the Company's witnesses. That is because in his schedule he has estimated the amount of brickwork there is in the piers, but he does it in a separate item, for the purpose of furnishing figures that can be used in estimating the cost of this unnecessary brickwork. When that item is taken out, his results substantially check the results of Kirkpatrick and Ranger.

I alluded to the construction that is included in the value of the land. The most glaring instance is at the gas works. This is what happened at the gas works. In 1849 the site of the gas works was the bed of the river, about 17 feet lower down than where it now is. They wanted to make some land there, and they built out on the river a retaining wall 17 feet high. They started at bed rock and ran up some foundations 17 feet into the air, put the buildings at proper level on top, and filled in round the foundation walls and out to the retaining wall. Now the Company comes along and says that we should pay the value of this land as land, as good land, as land good for building purposes; we should pay for the wall which makes this land possible; we should pay for the brick foundations which extend from the old bed of the river 17 feet in the air, which were built in order to put the buildings up where they ought to be on top of this land. They do not stop there. They say that we should pay for excavating a hole in the air 17 feet deep from 20 cents to \$1 a yard, according to the conscience of the witness, and then that we should pay from 20 cents to \$1.35 a yard for puddling and backfilling it. That is all in their estimates. They want 17 feet of foundation, excavating and backfilling, and they want the value of the land as land, and the cost of the retaining wall.

Now we say that that wall belongs to the land, and if the land is worth 25 to 40 cents a foot, or 50 cents a foot, that settles the value of the wall. It has no value by itself and apart from the value of the land. The same is true of the site of the electric

light station. We wondered all during the trial of the case why it was that the petitioner had so much more excavating than we had. Only part of that difference could be explained by slope. Well, it came out in the rebuttal. It seems, according to Mr. Sawin, that when they originally built this plant the surface of the soil differed from its present condition, and that they had charged into the cost of the excavation the levelling process necessary to put the land in shape. So that there they want the present value of the land as land, its value based upon its present surface and its present condition, and they want to work in the cost of putting it into that shape back in 1890 or 1891.

Those are only two of the instances cited upon our brief. But, in addition to that, they want, it seems to us, too much for excavation. The slope that is uniformly used by the petitioner's witnesses is a slope of one to one. We claim that a slope of one to one-half is sufficient, and our statement is supported by the evidence of Mr. Mason upon this point. That is, when you are dealing with a matter of excavating five, seven or nine feet on ordinary soil, a slope of one to one-half is sufficient. It is entirely possible, may your Honors please, that when it comes to excavating the wheel pit and tailrace at the electric light station a slope of one to one, as suggested by Mr. Main, would be the proper slope to adopt at that point, but as a matter of fact in the gas plant and the electric light plant the slope that we suggest is sufficient.

It remained for the petitioner, at almost the last hour of this trial, in the evidence of Mr. Tower, to corroborate fully and entirely our contention. Mr. Tower says that in Holyoke—and Mr. Tower is represented to us to be a gentleman who has built a hundred paper mills, of which 25 are in the city of Holyoke—that in the City of Holyoke he does not figure upon any slope when putting in foundations of about seven feet in depth. His statement fully justifies Mr. Davis, who takes that same attitude. Mr. Davis was cross-examined at this point at great length, in Vol. VII, as to whether some slope should not be allowed in a five-foot excavation. He said not, and that is the view of Mr. Tower. That is the practical experience of these gentlemen who had been engaged a great many years in doing just this work. You will find that the slope makes a very large proportional difference in the cost of these buildings.

Another cause of difference lies in the prices that are adopted by the different witnesses. The fact has been alluded to by Mr. Matthews that the company furnished their witnesses a schedule of prices which has never been proven in this case. And I want to call your attention to an additional fact in this schedule. Brickwork in Holyoke is done at so much a thousand, and is done at a very reasonable figure. The Company did not furnish their experts with a statement of the cost of laying brick in Holyoke per thousand. They gave them the price of brick per thousand and the price of labor per day, which seems to me to be rather unusual, considering the uniform practice in Holyoke as testified to by various witnesses.

Now Mr. Ranger, who is in the wholesale lumber business, and deals in materials, furnished a schedule of prices in Holyoke—prices which represent the cost of materials in large quantities to a builder or any purchaser in the year 1897-8. It is the cost which Mr. Ranger used himself in his schedule. Mr. Kirkpatrick made a thorough investigation of the subject. He tells you the builders, masons, and others that he went to and from, and from whom he obtained prices. There was such a wide difference at this point between the witnesses for the petitioner and the witnesses for the City that it seemed to us wise to go outside the witnesses that had thus far been called in to estimate the cost of these buildings, in order to ascertain, if possible, who was right. We thought such a course would appeal to this Commission. And we went to Mr. Bradley, the manager of the Merrick Lumber Company in Holyoke, a gentleman entirely disinterested in this case, representing a substantial, solid business company in the City of Holyoke, and he furnished a schedule of prices which he says are the prices that his company was asking in January, 1898, of purchasers who were seeking quantities anything like the quantities involved in the buildings in question in this case. His figures corroborate Ranger and Kirkpatrick fully. And it seems, therefore, to us, that you should find that the cost of brickwork and the cost of lumber and the other items which are set out in Nettleton's schedule and Kirkpatrick's, Ranger's and Bradley's schedules are as given by the City's witnesses.

Now that price list is important, gentlemen, in dealing with

the actual reproductive cost or the contract cost of these buildings. We have, as I will show you in a moment, discovered just what it amounts to in the case of any witness called by the company. It makes a difference of a good many thousand dollars in either of these plants, and you will have to determine upon the evidence in this case at some time who is right—whether the unsworn, unsupported schedule furnished by the Company in this case to its witnesses represents the true cost of materials in 1898, or whether the schedules as furnished by three witnesses in behalf of the City are correct. If we are correct, as we believe we are under the evidence in this case, then this difference in price should redound to our benefit.

The cost of brickwork is a considerable item in the contract cost of these buildings. Now the cost of brickwork has been taken by the witnesses in this case at various prices. The Company's witnesses take it anywhere from \$9 a thousand to \$11 a thousand for lime-laid brick, and anywhere from \$10 to \$15 a thousand for cement-laid brick. We think that we have sufficiently demonstrated in this case that from \$9 to \$10 is ample for lime and cement-laid brick, because that is the testimony of Ranger and Kirkpatrick; that is the price at which Mr. Ranger was able to do work; that is the price that Mr. Rivers told Mr. Anderson that work was done for in Holyoke; it is the price that Mr. Anderson adopts in his testimony; that is the price that Mr. Fowler uses, who lives in Springfield, as does Mr. Anderson, close to the city of Holyoke.

We say it is very significant that the two witnesses called by the Company who live nearest to the City of Holyoke should take the same prices for brickwork as that taken by the City's witnesses. It is true that some of our witnesses take prices higher than those that we here suggest. That is true of Mr. Main, it is true of Mr. Blood, and possibly of others. The reason is that these gentlemen live far from the City of Holyoke; they are not familiar with local prices, and they take the price current at the city or vicinity in which they live, and not the price in Holyoke, which is admittedly very low. That is the testimony of Mr. Nettleton, who states that the cost of laying brick in Holyoke is extremely low.

I suggested a moment ago that the effect of refiguring the Company's schedules at the City's prices would show the differ-

ence between the petitioner's estimates and ours due to price of materials. We have had that work done, and you will find on pages 328 and 329 of our brief the result of our work. This result would not be possible if it had not been that the Company's witnesses all took the same quantities. But inasmuch as they have all used the quantities of Sawin and Walther, it is obvious, if you stop to think a moment, that if you take any witness called by the petitioner and figure his quantities at our prices, the difference between that estimate and his original estimate will represent the excess due to price of materials alone. The higher the prices taken by the Company's witnesses the greater will be that difference, of course. But it will in any case represent the difference between our contention and that of the petitioner's witness, whoever he may be, due to the price of materials alone. That is true both in the gas plant, in the electric light plant, and in the hydraulic plant.

Now we have in this case, using our price list, figured Fowler's original estimate of the gas plant, and the difference between Fowler's original and refigured estimates due to the price of materials alone is \$10,312. That is in the gas plant. Of course if we had taken some other witness, say Mr. Allen, that difference would have been very much more; but as Mr. Allen and Mr. Fowler have the same quantities it would still represent the difference due to price of materials.

In the electric light plant we figured Mr. Prichard's quantities at our prices, and we find that the difference between his estimate of the cost of the electric light plant and our contention is \$19,400. Of course if we had selected the schedule of any other witness the difference would have been something else, but it would still have represented the difference due to price of materials.

You will find that we have enumerated the causes of difference and substantially all of them in the schedules in question. They lie in the few admitted errors, in the excavation, in the brickwork, in the prices. They can be and will be later on still further simplified, and you will find that the excavation and brickwork can be brought down to the piers in the electric light plant, the slope in the electric light plant, and in the gas plant to the extra foundations which the company have included in their schedule, running down to the old bed rock of the river.

I may as well here speak of one of the other admitted errors, and that is in the iron work in the Bridge Street holder. A great many hours were taken up in the trial of this case in cross-examination of Mr. Davis and others, trying to convince these gentlemen that they had not found all the iron work that was in that Bridge Street holder, although they had been down there, some of them three times, and others twice, trying to find it. It turned out in rebuttal that the Company had made a mistake, that Mr. Davis was right, and that there are a great many tons of iron work incorrectly included in the Company's quantities. So many tons that at three cents a pound, the price which has been universally taken throughout the case as the cost of iron work at the period of 1897-8, the excess amounts to some \$1,900. The amount to be attributed to the pier work, which was improperly included, according to Mr. Gross—he so admits upon the stand—is some \$3,500; that is his figure.

If you will then allow the admitted error of \$1,900, if you allow \$6,000 for the excessive excavation, and \$12,000 for the excessive prices, you will see that you have brought the estimate of the Company's witnesses and the City's witnesses at the gas plant approximately together. Such other difference as here appears will be later on eliminated.

The same is true of the electric plant. If you deduct \$3,500 for the piers—admittedly that should be deducted—and \$8,300 for excessive excavation, and \$19,000 for excessive prices, a total of \$30,000, the cost will be brought down to about the City's contention. Why you should take those figures we will endeavor to show later.

We will take up now the valuation of the gas plant in detail, on page 362 of our brief. I have alluded already to the fact that the gas plant was started in 1849. At that time the present city of Holyoke was a very small town; just its population we do not know, but later, in 1865, there were less than 6,000 inhabitants. The gas plant was started on the basis of a plant adapted to a very small population, and that explains the large number of very small sized mains which were originally installed, and which are still in the ground and in use. I believe it is a matter of common knowledge that Holyoke did not begin to grow until very much later than that period, and that its growth after it once started was very rapid.



It would appear from the evidence that the purifying plant, the condenser room and machine shop and some other of the present buildings were erected in 1849. That is the only explanation of the depth of foundations in the old buildings. Some times later,—and this date is of importance,—in 1880, the present retort house was built. Now it is apparent that 17-foot foundations are not necessary on this site, because when they put in the retort house in 1880, having torn down the old retort house, they put in foundation walls of normal depth. I forget just what they are; six or seven feet, perhaps.

The Bridge Street holder was built in 1884. Up to that time they had two holders, both upon the original lot. The date is of importance, bearing upon some facts in this case to which we will subsequently call your attention. It was built, according to Mr. Snow, because they needed more holder capacity, but it was put where it was in order to help out the distribution system.

We have on page 363 of our brief a table showing the date of erection or installation of the various parts of this plant. I do not know at this moment that it is necessary to enumerate them all. They have been selected from the evidence of Snow, mostly, Nettleton to some extent, and arranged in order of their date. We make use of these dates later on, and for some purposes they are of importance.

The general capacity of this plant—that is, taking the plant as a whole—is half a million feet. There has been some attempt to vary that figure, but that is the positive testimony of Mr. Snow in Vol. I of this evidence. The generating capacity is greatly in excess of that, being some 1,300,000 feet; but the capacity of the purifying plant is half a million feet. Mr. Snow testified pointedly in his direct examination that if the output of this plant should exceed half a million feet it would be necessary to rebuild the purifying plant. The working capacity of the present holders is 300,000 feet. They have a rated capacity of 325,000 feet. Now the capacity of the purifying plant and of the condensers, which are also half a million feet—the capacity of the holders is of importance, gentlemen, and we argue something later from them. It is true that in rebuttal and possibly at other points in this case there has been an attempt made to show that the purifying plant can be worked to some 600,000 or 700,000 feet a day. But we submit to you that the practical

experience of the man who has been running this plant for years as to the amount of work that it ought to do a day, is to be taken in preference to the theoretic opinion of any witness.

That statement applies not only to Mr. Snow's testimony in regard to the working capacity of the purifiers and condensers, but applies also to the evidence of Mr. Winchester, to which we will later on refer, as to the capacity of his engines at the lighting station.

We have given you on page 364 a table taken from the Gas Commissioners' reports, showing the maximum daily output of gas, beginning with the year 1886-7, and extending through the year 1900-1. We have done this because you understand the capacity of the plant is to be measured by the maximum daily output, not the average. It must take care of its maximum. Back in 1885 or 1886 you will find that there was a maximum output of 420,000 cubic feet. That seems to be a little out of its order. It is very much larger than the year before or the year following. The reason was that there was a peculiarly dark day which came in that year, which caused a remarkably large output.

We call your attention also to the fact that all the holders are covered, and that there are eight small tar wells or tanks upon this land. We call your attention also to the fact that the service pipes are laid to the curb line by the Company and belong to the Company only to the curb line, and from the curb line into the house belong to the customer.

We have taken up the question of the gas plant under a few subheads as follows: the buildings generally, the holders, the purifying plant, the land, cost of manufacture, and the distribution system, believing that by so doing we can get at the true contract cost without averaging anybody's figures, trying to furnish you a means or suggest to you a means of analyzing this evidence; and we believe that wherever that can be done, you will decide in favor of one side or the other on the contentions which we raise. There will be, of course, times when it will be proper to average and where we have averaged. For instance, I have in mind at this moment some of the machinery items. A comes in and says that machinery is worth so much, and B says it is worth so much, and D gives another figure, and it seems to be a question of opinion; there is absolutely no way of reconcil-

ing the differences or finding just where they lie. In such a case as that it may be proper enough to average them up on the theory that the resultant will be pretty near the fact in the case.

We claim that there are certain defects in this plant to which we wish to call your attention. The principal defects, those that are worthy of being dealt with in the final argument, lie in the holders, the covers, the tar and oil wells, the purifying plant and in the excessive cost of manufacturing gas at this plant, and in the leakage of the distribution system.

The evidence upon these questions is about as follows, taking first the holders:

As I said a moment ago, the rated capacity of the holders is 325,000 cubic feet, and the actual working capacity 300,000 feet a day. The City claims that it is necessary substantially at the present time, to have more holder capacity, and that means that another holder must soon be built either at the works or away from the works. This is the testimony of Mr. Davis, it is the testimony of Stedman; a question of whether it should be done next year or year after, perhaps, but in the immediate future if not at present, there should be more holder capacity provided.

What does that mean? It means that if we put another holder at the works we must tear down one of the holders that are there. It means that if we put a holder somewhere else we have got two holders away from the works, with the unnecessary expense of caring for them, heating them, looking after them. But that is not all; if we build another holder away from the works we have four holders—four holders for this moderate sized plant, doing the work of two holders, or at the outside of three holders.

Now the Company says it is not going to be necessary for quite a while to install another holder, and they dispute our contention. Who is right?

There is a significant fact in this case. The Bridge Street holder was built in 1884. It was necessary then, Mr. Snow says, to put in a holder in order to do their work. They needed another holder. At that time they had two holders and the rated capacity of those two holders was 175,000 cubic feet.

They had at that time a maximum daily output of about 200,000 cubic feet. In other words, there was an excess of maximum daily output over the rated capacity of those holders of about 14 per cent. In 1898 the rated capacity of the holders was 325,000 feet, the maximum output had been 420,000 feet, or an excess of maximum output over rated capacity of 26 per cent, very nearly twice as much as in 1884, when Mr. Snow says it was necessary to install a new holder in order to take care of the output of gas.

It may be suggested that in the mean time the water gas plant had been put in, which is more elastic in its operations than a coal gas plant. But admitting that is so, and it is true, it does not any more than take care of the extra percentage between the 14 per cent. and the 26 per cent.

There is no advantage in having holders away from the works, except to help out the distribution system. If the distribution system was all right it would be just as well to have the holders at the works, and if the holders were at the works it would be much more economical to care for them.

These holders all have covers, and a good deal has been said in this case as to whether covers are worth their cost or not. Witnesses have testified, some of them, that covers are good things to have. Well, they are. But the question in this case, Mr. Chairman, is, are they worth their cost? The statement that a cover is a good thing does not answer the question. Is a cover worth its cost? How much are they worth? How much value do they give to the holder?

Well, nobody is building covers over holders at the present time. Not only are they not building them over large holders, but they are not building them over small holders. There has not a witness been called in this case, so far as I remember, who can tell of a single instance in the last ten or twelve years where a cover has been built over a holder. Mr. Prichard, as a matter of fact, had installed within somewhat recent years a small holder of a capacity of about 210,000 feet, and he did not build any cover over it. Nobody has been building any covers. From that we argue, and I think properly, that while there may be some advantage in a cover, it is not sufficient to warrant the building of it, otherwise the gas manufacturers would build them.

We rely upon that fact and upon the testimony of our witnesses in the case, for you to find that the cover is not worth its cost. We don't mean by that that you shall say it is not worth anything. But we submit that under the testimony of Mr. Amory and Mr. Stedman, a figure can be reached which will represent the value of the cover, and that will be something considerably less than its reproductive cost. It is obvious, I think, that what Mr. Stedman said in regard to the tar and oil wells is true. It cannot be that eight little tar wells that have been strung together since 1849 are worth what it would cost to rebuild them. Their value must be measured rather by what it would cost to build in January, 1898, on this land, tar wells to do the same work.

Now we are going to maintain with a good deal of earnestness, gentlemen, that our contention in regard to this purifying plant is true, and that it has outgrown its usefulness; that it must be rebuilt, and it must be rebuilt at once. I have already called your attention to the fact that Mr. Snow stated at the beginning of this case that the working capacity of the purifying and condensing plant was half a million feet, and when the output of plant reached that figure the purifying plant would have to be rebuilt. Our witnesses are unhesitating in their opinion upon this point. Mr. Stedman, Mr. Davis and Mr. Amory all unite in saying that for the economical working of this plant it is necessary forthwith in some way to rebuild this portion. They take somewhat different views as to just what should be done. Mr. Davis suggests that you can add certain purifying boxes to this plant; Mr. Amory thinks that it will be necessary to tear it down and to rebuild, to put in really a new purifying plant. Well, the result is the same.

It was suggested in cross-examination that if we add to the present plant, that is, if we put in more boxes, the additions would be extensions, and wouldn't affect the value of the existing plant, because you extend it. Well, that is not so. The extensions cost so much and involve so much in the way of changes that they wipe out the value of the present plant. We take that from the evidence.

Mr. Randolph, who is a witness for the Company, testified on this point. I will bring up the figures bearing upon that at a later point in the case; but I simply now state that we will show

you later on that the cost of adding to these pans eliminates entirely the present value of the purifying plant. But our contention on this point, gentlemen, is disputed. We state that it is necessary, and our witnesses maintain positively that it is necessary immediately to rebuild the purifying plant and condensing plant. The Company denies it.

Now how are you going to get at the true fact? On the one side there are several witnesses who say that the plant is all right and can purify 600,000 or 700,000 cubic feet a day; and, on the other side, gentlemen who say it must be rebuilt at once, because it is not doing its work properly. Well, there is a fact in this case which we think definitely and positively settles this question. The value of that purifying plant depends upon its capacity to do its work economically. If it is costing two or three times too much to purify gas at this plant, then something is wrong with the plant, and no practical man would pay for its cost. If it is costing two or three times too much to purify gas at the purifying plant, gentlemen, you would not have it; you would tear it down and you would rebuild it; no successful business man at the present time will keep a piece of machinery in his works when it becomes extravagant in its operation.

Mr. Randolph has told us what it ought to cost to purify gas in a well regulated plant. It comes from Mr. Randolph. It is a statement of a witness called by the Company. And he says it ought to cost from half a cent a thousand feet manufactured to a cent and a half a thousand feet, and that in a well regulated plant it ought not to cost over three-fourths of a cent a thousand. But the outside limit he puts for a plant which is apparently not a well regulated plant, is a cent and a half a thousand.

Well now, there is something to go by. There is a test that you can apply in this case; and therefore we thought that we would apply it; and we went to the Gas Commissioners' reports for the year 1897-8 to find out what it cost to purify gas at this plant, and we found that in their sworn returns where this very question is dealt with, that the cost of purifying was 5.3 cents a thousand feet manufactured. And the items are given by the Company in their sworn returns; that is, that the lime amounts to 3.4 cents a thousand feet, and that the labor

amounts to 1.9 cents a thousand feet. Therefore it has cost them to purify at his plant 5.3 cents a thousand feet as against  $\frac{1}{4}$  of a cent a thousand feet, the figure Mr. Randolph says represents what it ought to cost.

That means that it has cost on an output of 68,000,000 feet, \$3,000 a year to purify gas at this plant more than it ought to cost. Well, it is worth while to save \$3,000 a year. That is interest on quite a large amount of money, and you can afford to expend a substantial amount to correct such an extravagant expense as that. That fact, we submit, fully substantiates our entire contention in regard to this purifying plant. It is a fact which we say cannot be disputed. It is taken from their own sworn returns, and from the statement of their own principal gas expert, a gentleman who has been here in court day after day, representing the gas interests of the Holyoke Water Power Company in this case. That same result will come true if you apply it to the year 1896 or 1897. Whether it would come true if you applied it to some subsequent year since this litigation started or not, I cannot say, for we submit to you that any results which are exhibited or claimed in depreciation expense, or anything else, since the Company offered us this plant, should not be accepted as indicative of anything, except that they are letting this plant run down. They don't represent any normal, usual or ordinary expenditures.

Again, we say that this plant is defective, because it cost too much to manufacture gas. Again, in order to get at our results, we take their own statements and ask you to find results upon their statements, and not upon the statements of our witnesses.

Mr. Prichard and Mr. Humphreys agree that the cost of manufacturing gas in the holder at this plant is excessive, and Mr. Humphreys says that the cost should only be 49 cents a thousand feet in the holder. Mr. Humphreys is posed by our friends as really the great man in the gas business, and he gives a positive, unqualified estimate as to the proper cost of gas in the holder, namely, 49 cents.

Mr. W. H. Foster, one of Mr. Humphreys's men, as I recall it, analyzed the sworn returns of the gas company and he says that gas cost in the holder at this plant 58 cents in 1896-7 and 51 or about 52 cents in 1897-8. Now six cents a thousand, when you come to deal with millions of feet of output, amounts

to quite an item. You see in this case the Company doesn't want to rely upon its sworn returns; and it hires an expert to revamp its books and to apply his judgment to its system of bookkeeping and to eliminate every possible item which does not belong to the cost of manufacture, which does not belong to repairs, and to put into the construction account everything that can be put there, and after having done that, his result is that it cost one year 58 cents and the other year 52 cents to manufacture gas in the holder at this plant.

Well now, that is all wrong, and what is their explanation of it? Why, they say that the repair account is too high! Now that is their only explanation. Yet, if this plant is such a plant that it needs too much money for repairs, then it is not a good plant. If they have a plant here upon which it is necessary to expend each year too much money for repairs, then it is not a proper kind of a plant; and it is just as bad from our standpoint, it is just as serious to us if you furnish us a plant upon which we must spend too much money each year for repairs, as if you turn over to us a plant upon which we must spend large sums of money in rebuilding either the purifying or the distribution system.

But the contention is not so. There was not too much money spent in repairs upon this plant in the years in question. In fact, there was not enough money spent upon this plant for repairs during the years in question. Why, there could not have been, in the first place. This repair account can include nothing but repairs. It is the figure obtained by Mr. Foster after he had eliminated everything that he could possibly eliminate from the repair account and put it into the construction account.

But Mr. Humphreys suggests that 6½ cents a thousand feet would be sufficient for repairs, and he finds some apparent corroboration in the statement of Mr. Fowler that 6 cents a thousand would be enough for repairs.

It is important, it seems to me, on this aspect of the case, for you to consider what ought to be paid for repairs at this plant, each year. How are you going to get at it? You can take the statement of A, B or C, relying upon his apparent skill, upon his experience, or you can try to find out for yourselves.

Well, in the first place, isn't it of some importance what other



companies pay for repairs? If it is possible to ascertain the repair account of a large number of companies substantially like this, doesn't it shed some light upon what ought to be paid? We think so. And in the famous 24 companies of Mr. Prichard and Mr. Nettleton which they say are comparable with the City of Holyoke, the average results show that 15.9 cents per thousand feet of gas manufactured was expended for repairs annually and that all the companies in the State, including the large companies of Boston, paid out annually 14½ cents a thousand feet manufactured for repairs. According to that, then, if we can draw any lesson from these average results, and we submit they are practically conclusive in this case, the Company is not paying enough for repairs. But there is another thing to be considered. What has this Company been paying for repairs in years past? We again went to the Gas Commissioners' reports to find out. Now there has been very little construction at this plant. The water gas plant was put in recently, but the analysis of W. H. Foster takes out of the repair account any items of construction belonging to the water gas plant. Barring that, there has been no construction of any importance as revealed by this evidence, for some years past. And the figures for the years preceding, 1897-8, which are given in our brief in detail on page 369, will convince you that the average annual amount expended for repairs at this plant, before litigation started and before there was any object in saving money by cutting down repairs, was about \$13,000.

Mr. BROOKS. Mr. Green, do I understand that you obtained that from the returns to the Gas and Electric Light Commissioners?

Mr. GREEN. Yes. Now that is their average annual repair account, gentlemen, for the years in question. Doesn't that mean something? It shows that they were expending for repairs in normal years, when they had no particular construction account, about what the other companies were expending.

You will notice another thing in Foster's analysis, and that is this: that at just about the time that the City voted to go into the electric lighting business, the repairs at the gas works stop. Why? I don't suppose, if our friends were outside of this room, that they would have the slightest hesitancy in saying that they are going to get every dollar out of this plant that they can

get out of it, and they are not going to keep up any repairs on this property, beyond the amount necessary to keep it a-going. So that from all these facts, from the fact that the other companies in the State pay some 14 or 15 cents per thousand feet manufactured for repairs, the fact that this Company for years past has paid on an average of some \$13,000 for repairs, the fact that it is obvious from Foster's analysis that their repair account fell off at once upon the starting of this litigation, we ask you to find that the repairs as charged by Foster in his analysis are not excessive, but, on the contrary, they are not enough, and that it is costing, if you properly compute repairs at this plant, more than 58 cents a thousand feet for gas manufactured.

So much for Mr. Humphreys's contention. Mr. Fowler's contention is so obviously wrong or so obviously in error that only a word is necessary. He took his figures from the Gas Commissioners' report. He thought he was getting the average figure of some of the companies. Well, he left out one item; that is all. If he had included that item he would agree with us. He did not give his opinion based on experience, but properly, as we say, he went to the Gas Commissioners' report to find out what the average company was doing, and he attempted to make an average, did it hastily, and forgot or overlooked one item of repairs. Having put that in, Mr. Fowler stands substantially with us.

Just what this difference amounts to when you come to apply it to the output of the Company will be considered later. It is sufficient for my purpose at the present time to ask you to find in this case that it is costing too much to manufacture gas at this plant; that it ought to cost, according to Mr. Humphreys, not over 49 cents a thousand feet, and that it is costing over 58 cents a thousand feet.

Another defect in this plant, or defective part of this plant, is the distribution system. It is very faulty, it is very uneconomical. You cannot afford to run this plant with the distribution system in its present condition. The leakage at this plant is excessive, and leakage is an expense charged to the cost of manufacture, and the greater the leakage, the greater is that expense. We say that there is an inordinate amount of small sized mains in this distribution system, and we suggest that there is a relation

between the small sized mains and the leakage account. This fact was disputed in the case. The Company's witnesses, many of them—I don't know if all—said that the leakage account was not abnormal, either in feet per mile of main or in percentage of gas manufactured. Our witnesses said that it was. Now you have this same state of facts confronting you—a number of people on one side and the other differing in their opinion. Where are you going to get any light on this question? We suggest again that you go outside of the statements of the witnesses and consider some facts. Cannot you form some opinion as to whether the amount of leakage at this plant is excessive or not by studying other companies? What is meant by saying that the leakage is excessive? Doesn't it mean this, and nothing more than this, that there is more leakage than there ought to be and whether there ought to be more or less leakage depends upon the leakage account of well regulated plants? If you can take a number of plants which are admittedly comparable with this plant, and find out what their average leakage account is, it tells you something about what ought to be the leakage in Holyoke; and therefore we turn again to Prichard's and Nettleton's companies—properly so because Prichard and Nettleton use their companies in order to draw inferences as to the proper cost of the manufacture of gas—and find out what the average leakage is; and the leakage is chargeable to the cost of manufacture.

Well, the figures are found in Chase's table. The gas unaccounted for, to call your attention to these figures again—the gas unaccounted for in the Holyoke plant in 1897-8 was nearly 11 per cent., and the loss was about 231,000 feet per mile of main. In the 24 companies which Mr. Prichard says are comparable with Holyoke the percentage of loss was only 7.3 per cent. of the output and only about 158,000 feet per mile of main.

Our leakage account, therefore, is very much in excess of the average of these companies. Now why? We suggest that it is due to the small sized mains. It seems to us, to some extent also, gentlemen, it may be due to the fact that we have lead jointed pipes at Holyoke. You understand lead jointed pipes are more expensive than the cement pipes, but they have this drawback, that when they break they do not break clear across. You get a little break in them which gives a little leakage which

is hard to detect, and a great many such little breaks throughout the city result in a large leakage which you cannot find. On the contrary, if the joints were cement joints, a break once started goes clear across; there is a large leakage for a time, but it reveals itself and can be corrected. But we say that the leakage account is mainly due to the excessive amount of small sized mains.

I do not know that it is necessary at all to give the results of the computations upon this point. It has been brought to your attention that in the 24 companies there has been an average decrease in leakage almost exactly proportioned to the average decrease in the number of small sized mains or amount of small sized mains. There is one very significant case—I do not know that your attention has been called to that case—and that was at Gloucester. You can easily corroborate our results, if you wish. In 1887-8 the leakage of the Gloucester company was 247,000 feet per mile of main. Ten years later, in 1897-8, it was 63,000 feet per mile of main. The loss in 1887 was nearly 20 per cent. of the output. Ten years later it was 3 per cent. of the output. Now in 1887-8 the Gloucester company had 70 per cent. of its mains four inches in diameter and under, while in 1898 the percentage of such mains had been reduced to 30. That is a fact, it cannot be disputed, and it seems to us to be very significant.

Mr. BROOKS. Mr. Green, can I ask you a question without disturbing you?

Mr. GREEN. Yes, I think so.

Mr. BROOKS. I would like to know where there is any evidence in this case that the Gloucester company recently relaid its mains?

Mr. GREEN. The evidence is in the Gas Commissioners' reports, which are in evidence in the case.

Mr. BROOKS. Does that show that they recently relaid their mains?

Mr. GREEN. I think it does, clearly and distinctly.

Mr. MATTHEWS. Within the period of ten years, Mr. Green, covered by Mr. Chase's calculations.

Mr. GREEN. Well, I assumed that was so, because I was discussing here a period of ten years, from 1887-8 to 1897-8. If you are interested in discovering just what amount should be charged up to the manufacture of gas because of the leakage, if

you will turn to Mr. Humphreys's evidence, or Mr. Foster's, in Vol. II, page 210, you will find a formula given which we have applied but have not stated in our brief, and it is to multiply the leakage amount by the cost of manufacture and divide the result by the amount sold.

Mr. Foster it was who, in behalf of the Company,\* tried to break the force of our contention at this point. He went to work and picked out here and there arbitrarily, without any apparent reason except that he thought the results looked good, a lot of companies throughout the State, and tabulated them, showing their leakage account and their miles of small sized mains. They are companies in no way comparable with Holyoke. I remember he had included Amherst and Easthampton, and they have a little toy gas plant down in Nantucket; I remember seeing it last summer; I don't know whether they have really an entire mile of main down there or not, but it is very small; and he has that in. And when he is finished what has he proven? He has not averaged any results, he has not compared any results, and his tables are conclusive of nothing whatever.

So that we ask you on this point with great confidence to find an excessive leakage in the distribution system of the Holyoke Water Power Company, and that that leakage account is due to the small sized mains which are there—these same mains that started back when Holyoke had less than 5,000 inhabitants, which have stayed in the ground and have never been changed since that time, never been relaid, merely patched out and added to and extended from time to time.

At this point I leave the question of the defects which we suggest in the plant of the petitioner. I have not asked you to estimate in dollars and cents the deduction to be made for these defects, and it is not my purpose to do so now; but we have simply called your attention to them, intending at a later time to again take them up, having suggested what the defects are and their cause, and ask you to put into dollars and cents the amount that should be deducted from the contract cost of this plant owing to the existence of the defects alluded to.

We wish at this point to suggest one further thought in regard to the analyses which we have made in this case of the contract cost of the gas plant, the hydraulic plant, the steam and electric plant—the analyses of the defects, and the analyses

of the amounts which should be allowed for those defects. They are of course an aid to us, and we trust to the Commission, in arriving at the true result. But we wish to suggest also that we shall ask the Commission to pass upon them in detail. We believe that the proper trial of this case will call for such action, and I suggest it at this point that you may appreciate that at the end of it all, when you come to make up your finding, we shall ask for rulings on the various propositions which we lay down as we advance.

The CHAIRMAN. We understand that; it has already been suggested.

Mr. GREEN. I will leave now for a moment the consideration of the present plant, and ask you to consider with us the contract cost, disregarding land, of course, of a plant of equal capacity with this but of modern design. The reasons for the consideration of such a fact as this have been given by my senior with great clearness, so that I will turn directly to the fact itself.

We offered, in the evidence of Mr. Davis, the cost of such a plant, a plant of a million feet capacity, a new plant, and, as we claim, a plant of modern design; a plant such as would be built, if an entire plant were to be built at one time. Mr. Davis says that such a plant could be built, exclusive of land, for \$255,000. He says that he would have taken a contract for such a plant, in January, 1898, at that amount. As the cross-examination advanced certain criticisms of his plant were made, criticisms involving the location of the office and of the repair shop and the arrangement of the parts. Some facts were brought out in cross-examination in regard to Mr. Davis's estimate of foundations, the amount of stone he estimated in a perch, a few such facts as that, so that when Mr. Stedman took the stand, wishing to allow for any defects or errors in the plant that might have been suggested, whether they actually existed or not, but accepting for the moment the Company's contention as revealed in cross-examination, Mr. Stedman allowed for such matters and added \$5,000 to Mr. Davis's figures, and obtained a result of \$260,000, assuming for the moment that it would be preferable to have a separate office building and to change the location of the workshop, and to make some other changes of that kind.

The site for this plant we suggested at the City lot. You understand, however, that this plant can be built anywhere. There is nothing magnetic about the City lot that necessitates the erection of a gas plant at that particular place. It could be placed, as has already appeared in evidence, upon the present site of the gas works—be built anywhere; and we assumed, as we had a right to assume, average, normal land.

Now this plant was criticised by the petitioner, and they have put in two schedules showing what, in their opinion, it would cost to erect this plant. Or I shall change that. They did not do any such thing. They put in schedules tending to show what it would cost to erect this plant upon the worst conceivable condition of soil that their imaginations could conjure up. They have made in this case no estimate whatever of what it would cost to build a modern plant under normal conditions. They have made no estimate of what it would cost to build this plant on decent soil and under normal conditions. But, assuming that this soil was of the worst kind, bog and quicksand, and on top of a sewer, they have figured up the highest possible cost of a structure. We say that such a computation proves nothing except the ingenuity of the figurer, and that their results, when properly considered, support our contention fully and absolutely.

We have enumerated in our brief their objections to Mr. Davis's plant. They have had the plant before them to criticise for months, and I don't know but for years—I have forgotten the date when in the history of this case it went in evidence—and their objections to this plant amount to this: They say that there is a lack of proportion of apparatus; that the coal gas plant would generate but half a million cubic feet and that the exhausters would take care of seven million feet, and that the station meter has a capacity of only 700,000 cubic feet, and the condensers 600,000 cubic feet, and the tower scrubber 250,000 feet. Those were the objections made by Mr. Randolph. Just bear in mind the evidence that according to him we have an exhauster capacity of seven million feet, and then Mr. Prichard comes along and says his criticism is that there is no room for an extension of the exhauster plant. Well, if we have provided for an exhauster capacity of seven million feet, I don't think that there will be any need of extending it during the life of this plant at least.

It may be there is some truth in that criticism, but what does it amount to? What we are trying to get at is a fair figure which represents the cost of a plant that will do the work of the Holyoke plant. We are not here to argue that the Kendall process is better than the Lowe process or the Lowe process better than something else, but we are trying to get before you what it would cost to build a plant that will make a million feet of gas.

Mr. Randolph has never put down in dollars and cents what it would cost to put in, for instance, a station meter of one million feet capacity rather than 700,000 feet capacity, or to substitute for the machinery which he says is too small machinery which would be large enough. Why? Because the difference is extremely slight. It is one thing to rip out a lot of old machinery and put in new. It is another thing to choose between putting in originally a meter of 700,000 feet and putting in a meter of the capacity of one million feet a day.

They say that the boiler capacity is deficient, there are no railroad connections, that there is no water gas tar well provided for. They criticise the absence of an office building and a repair shop, the use of a wooden coke shed and the scattered arrangement of the apparatus. They object to the Kendall process, which is drawn in upon the plan, and the absence of ammonia tanks, or apparatus for saving ammonia.

Now, keeping in mind that what we are after is the cost, a fair figure for the cost of a plant of a million feet capacity, what do any of these things amount to? Why, if the exhausters are too large, put in smaller exhausters, and they won't cost so much. It is the cost that we are after. If the boiler capacity is too small, what does it cost to put in a rather larger boiler capacity? Well, that, Mr. Prichard, I believe, has suggested in a computation which he has made. It is not a large figure, even as he estimates it.

It seems as though Mr. Prichard and Mr. Randolph must have failed to read the evidence in this case, or they would not have criticised the City lot as being inaccessible to railroad communication. It was testified to again and again that not one but two railroads had their spur tracks almost to this lot. Can't we assume that this Commission knows that any railroad would be glad to extend its spur down to this lot in order



to deliver coal and other freight to us at this point; not only to us but to anybody who would put up a plant to consume the coal and need the hauling that would be needed at a gas plant in Holyoke? Their criticism that there is not a water gas tar well provided is untrue. It shows again that they have not read the evidence—have not examined Mr. Davis's plans and specifications.

Mr. Davis drew in on his plan one well, he found out what it cost to build that, and he multiplied his result by two. He showed on the stand one or two places where the well could be put, and his estimate provides for that other well, as you will find by the reference we have given you to the evidence in our brief.

The absence of the office building and the repair shop I have already alluded to. Mr. Stedman has provided for that in his estimate of \$260,000.

The use of the wooden coke shed is really a trifling criticism. It appears in the evidence that such coke sheds are in common use, so that the use of one at this point would be justified by experience.

They say that the apparatus is scattered, and they object to the arrangement of some of the apparatus, and I don't know but some of the buildings. But it is in evidence in this case both from Mr. Davis and Mr. Stedman that when it came to actually erecting this structure one could arrange the buildings or the apparatus as he pleased without affecting the cost. Almost any gas engineer would have some preference, probably, in details as to arrangements of parts, and probably no two gas engineers would agree exactly as to the best arrangement. We are after the cost. Now, Mr. Davis and Mr. Stedman both say that that rearrangement can be made to suit any gas engineer and not affect the cost. And no witness called by the Company disputes their contention.

They object to the Kendall process. We have not claimed anything about a Kendall process or a Lowe process. One costs just the same as the other. There is no difference in the price. For some reason, I don't know what—I never considered it of any importance—Mr. Davis drew in on his plan a Kendall process, but he testified on the stand that it made no difference as to the cost of the plant whether one or the other was used.

Now none of the contentions which are made in criticism of this plant are of any particular importance, and some of them are extremely trivial. And it is significant that although Mr. Randolph and Mr. Prichard criticise the plant, point out what they think are defects in the plant suggested, they neither of them give any estimate of the additional cost of this plant owing to the defects which they suggest.

We have tabulated on page 376 the computations made by Davis, Randolph and Prichard relative to the cost of what has been alluded to as Davis's plant. What we have given is, as before, the contract cost. We have left out the engineering, incidentals, the cost of plans and specifications, because those charges are arbitrary charges assumed by the witness, matters of opinion upon which this Commission will have to pass. We get a better comparison by taking the computations of the witnesses as to the contract cost alone.

You will see that there is quite a difference between the estimates given by Davis, Randolph and Prichard. Mr. Davis is the lowest, \$254,866, and Randolph the highest at \$373,000—between Davis and Randolph and nearly \$103,000 between Davis and Prichard.

Well, then we set ourselves the task, may it please this Commission, of finding out of what these differences consisted. It was perfectly apparent from the schedule that the differences lay to a large extent in the assumed character of the soil and not in the cost, properly, of the buildings or machinery.

Well, we discovered at once what Mr. Randolph freely admits that his schedule was very carelessly made. That is a very mild term by which to describe it. It is most carelessly made, it is full of errors, and curiously, every error is against the City. He has a most remarkable faculty of making mistakes in his computations, every one of which favors his contention.

Just look at it. We start at page 377 of our brief, setting out the errors that we have discovered. Some of them were noted while he was on the stand. He has an error of \$10,800 in his brick work against the City's interest, and \$1,000 in his item of sewer protection, and a small item of \$48 in his concrete. Those caught our eye as he was on the stand. Those are errors in footings, errors in computation.

But those are not all. We have noted since then, as you will see on this page, many other items—I do not care to read them over,—some of them amounting to some hundreds of dollars, every one of which is against the interest of the City.

Then we discovered while Mr. Randolph was on the stand that he incorrectly assumed a fact in regard to his services. He assumed that the services belonged to the Company, clear into the consumer's house. And when he was informed of the fact that the Company only owned and paid for the services to the curb line and that the consumer paid for and owned the services from the curb line into the house, he admitted that a deduction of at least \$10,000 should be made from his figures for services. There is, then, an error of \$10,000 admittedly in his services, and a total of \$12,725 for clerical errors in his computations.

The look at the foundation account. He has managed to work into this schedule of his nearly \$21,000 for extra foundations over the sewer, nearly \$30,000 for extra foundations for the holders, due to the character of the soil. He has put in here \$12,500 in round numbers for piling the lot in addition to the above, all owing to the character of the soil. Furthermore, he says that three-sevenths of his stone foundation is due to the extremely bad soil upon this lot, an item of \$1,429. Now the total of those items which are chargeable to the character of the soil is nearly \$65,000.

Then there are some other interesting things about this schedule of Mr. Randolph. He has increased his paving estimate from \$8,000, as given in his original testimony, to \$12,400, although the number of miles of main and the length of service is the same in one case as in the other.

He has changed the concrete item from \$5 to \$6 a yard in every place, but one, where he overlooked it, as he says himself. Now why should concrete cost \$6 a yard in Davis's new plant in January, 1898, and cost \$5 a yard in the Company's plant in January, 1898? And yet in his first estimate the figure which he took was \$5 a yard, and that is the figure which has been uniformly adopted, as I recall it, by all the witnesses throughout the case. That little change which was apparently made on the cars and which is obviously padding in order to get his

figures a little higher and have a little more fun with Davis's plant, amounts to twenty-five hundred odd dollars.

Now we say that every item to which we have called your attention should be deducted from his original result; that his estimates for foundations are improper and should not be considered by you in trying to get at the cost of the buildings and machinery of a modern plant designed to accommodate a business of a million feet maximum output. And of course the admitted errors, erroneous computations, and the obvious padding should be taken out. You understand that it is impossible for counsel in going over a set of figures to find out all the sources of error. We can only discover those which are really obvious. We are not experts; we can simply get at the facts which lie on the surface. And you will see that neither Mr. Randolph nor Mr. Prichard gives his work in sufficient detail for us to discover in all instances the cause of difference between either one of them and Mr. Davis. But when you have deducted the amounts to which we have called your attention, the cost of Davis's plant, according to Mr. Randolph, is \$279,000 in round numbers, which is only about 10 per cent. more than Davis's estimate. And Mr. Randolph has got into his estimate, as you can see, the largest possible charge at every point. Do you believe that a man who has put in \$64,000 for foundations, who has raised his concrete estimate from \$5 to \$6 a yard for the purposes of swelling his paving account \$4,000 or \$5,000 over his original figures, who has made all these other boosts in his first figures, has failed at every point—at every point—in his estimate of the cost new of Davis's plant to put the highest possible figure upon the buildings and machinery?

We say, then, that having taken into account what he did, having studied his schedules, they are the highest possible confirmation of what Mr. Davis told you in regard to the cost new of a plant of a million feet capacity.

Now Mr. Prichard's result can be analyzed in the same way. It is true that Mr. Prichard has a better prepared table; that is, it is freer from errors. It is prepared, evidently, with less haste. We have discovered only one or two errors in his computations. We will call your attention in our brief to one error of \$1,000 against the interest of the City, and we direct your attention to the fact that he, as well as Randolph, assumed that the services

ran to the consumer's cellar. Therefore we ask you on the strength of all the evidence in this case to divide his result in regard to the services in two, which would reduce his service item about \$6,000, a total of \$7,000 for what we should regard as the admitted errors.

But Mr. Prichard has followed somebody's suggestion, apparently, in this case, in regard to soil and foundations, and he has in an item of \$5,405 for piling, due to the character of the soil, and nearly \$24,000 for foundations for the holders, and \$17,000 for sewer protection. He could not go quite as high as Randolph, but he has some pretty big figures, a total of \$46,000 odd.

There are other items, however, in his table which are in excess of the same items as given in his examination in chief. I will call your attention to a few of them. We have called your attention to them in the brief, and I will orally.

For instance, he charges for meter shelves and settings at the rate of \$1.50 for Davis's plant. Now that is 50 cents more in each instance than the amount charged in his original schedule, which was \$1.

Mr. BROOKS. Mr. Green, was not one after allowing for depreciation, taking them as they were and where they were, and is not this new?

Mr. GREEN. No, sir, because Mr. Prichard's estimates in his direct testimony show the contract cost of the present plant and there is no depreciation in it.

Mr. BROOKS. I was talking about meters and meter shelves.

Mr. GREEN. Well—

Mr. BROOKS. But then I won't interrupt.

Mr. GREEN. I will ask you when your turn comes, Brother Brooks, to tell us where Mr. Prichard in his meter or meter shelves allowed any depreciation against the contract cost.

Mr. BROOKS. Very well.

Mr. GREEN. Or any depreciation whatever of any kind.

Mr. MATTHEWS. He says he offsets depreciation against installation charges.

Mr. GREEN. Yes. That is as I recall it. My associate suggests that the only depreciation which he allows is the off-

setting against the charges of installation and interest during construction, the depreciation of this plant. And you understand in this case the figure of \$1.50 has no engineering or incidentals or interest in it. It is the contract cost before those items have been added.

I call the attention of the Commissioners relative to the suggestion of our Brother Brooks to the respondent's brief at page 141 and the citations there given. You will find Mr. Prichard's depreciation for the gas plant is alluded to in Vol. II of the testimony, pages 2, 3, 59-68. You will find that our contention is true. That is quite a little lift—50 per cent. over his first figures.

Mr. Prichard also gets in an item of \$3,000 for paving over the services in excess of any consideration of his as disclosed in his schedule of the present plant. Now there are no more feet of services in the new plant of Davis than in the present plant. Those services, presumably, are going to run to the same houses in the new plant as in the existing plant, so that that item, we say, is obviously padding.

Mr. Prichard, for some reason, charges 4 cents a pound for his iron work, when he comes to estimate the cost of this new plant. We appeal to you with a great deal of confidence, to find that the cost of iron the year in question was 3 cents a pound, and that that is the proper figure to use. It is the figure here used by Mr. Randolph; it is the figure that was used by Mr. Tower; it is the figure which was used by many other witnesses. I remember Mr. Fowler, at this instant, and others, and Mr. Prichard only departs from it, we believe perhaps unconsciously, but with evident zeal for the interests of his clients.

There is a large difference in the estimate for the cost of the machinery as given by Davis and Prichard, and between the estimate given by Randolph and Prichard. Now of these three men, the man who knows obviously the least about the cost of machinery is Mr. Prichard. Mr. Davis is in the business; he is selling machinery. He has been at it for forty odd years. He has installed many and many a plant in whole or in part. He is the only manufacturer and seller of gas apparatus in New England. And here is Mr. Randolph; he is in the business. His firm is situated, or the firm for which he works is situated, in New York. Aren't we to suppose that Randolph and Davis between them, know more about the cost of this machinery

than does Mr. Prichard, who is merely a gas engineer, running, no doubt, an extremely good company over here in Lynn? And why should it be that Mr. Prichard is able to estimate the cost of this machinery some thousands of dollars higher than Mr. Randolph? Well, my reason for it, which I suggest to you, is this, that when it came to the cost of machinery Mr. Randolph knew the most about that of anything that he figured, and Prichard knew the least of it of any items that he figured; and that it was harder for Mr. Randolph to swell his figures in regard to the going price of machinery than it would be of any other item; and it was easier for Mr. Prichard to assume higher rates for machinery than for those other things with which he would be undoubtedly more familiar.

We say that this Commission could not possibly find a cost for that machinery higher than Randolph was able to place, with all his zeal as disclosed in the countless errors, the large padding and all around swelling of prices which he has given in getting at his final result. If then, you take these few obvious, patent errors, as we say mistakes, overcharges of Mr. Prichard, and add to them the amount which is obviously charged by him on account of the extremely poor soil that he has assumed, add them together and subtract them from his total result, you will find that the contract cost as given by him of the plant suggested by Davis, is \$28,000 in round numbers, or only about 10 per cent. in excess of the figure given by Mr. Davis himself.

Now let me call your attention, gentlemen, at this point, strongly, to one consideration, that there has been in this case no substantial criticism, no serious criticism of Mr. Davis's plant or of the plant suggested by Mr. Davis; that the criticisms have been of the soil upon which it was suggested that this plant might be erected; that the criticisms that are made in regard to the plant itself are mere details, which affect only to an inconsiderable percentage the actual cost of such a plant. And we believe that, upon taking everything into consideration, the experience of Mr. Davis, the long time he has been in the business, the number of plants that he has installed, the failure of the Company to seriously criticise his plant, how closely their own results when properly considered, check his figures, that you will find that Mr. Davis and Mr. Stedman are substantially correct as to the contract cost of a new plant built in 1897-8, and intended to accommodate an output of a million feet.

I will now call your attention to the contract cost of a new plant of the same design as the Company's plant.

Mr. COTTER. Exclusively of land?

Mr. GREEN. Exclusively of land. Our figures, you will find, until we come to the end of our work, are in all instances exclusive of land. The general tables involving this branch of our discussion have already been cited previously, in pages of our brief, beginning at 314. We have not tabulated again the contract cost of the buildings, because the original table contains the estimates of all the witnesses on that question. You will see, if you compare the figures as we have stated them on page 380, that there is not a great deal of difference between the figures of Mr. Fowler, who lives in Springfield, only 8 miles away, and the estimate of Stedman; a matter of \$11,000; that is all; and that there is only \$8,000 between Mr. Fowler and Kirkpatrick and Ranger.

Now let us take Mr. Fowler's figures and analyze them, and see if we can find just wherein he differs from our witnesses. Well now, we have asked you already, with a great deal of confidence, to eliminate from consideration those 17 feet foundations, the excavating and backfilling assumed to go with them. The quantities, as will be found by the analysis in Vol. X, page 462, attributable to the foundations which we say should not be considered, is given in yards and numbers of brick on page 380 of our brief. We have taken Fowler's price for excavation, Fowler's price for backfilling, and applied to it what we claim is the improper excavation and backfilling. We have taken the unnecessary brick at the same price Fowler used, \$10 a thousand, and the total amounts to \$6,070. We have added to that the admitted error in the iron work at the Bridge Street holder, and the total is \$7,969. That subtracted from Mr. Fowler's estimate, brings his result very close to Mr. Stedman's figure.

Now Mr. Stedman, while he made some investigation of prices at Holyoke, did not adopt anybody's schedule. He did as Mr. Blood and Mr. Main and various witnesses that we called did, exercised his own judgment as to the prices of material and labor. We have already discovered that the difference between Mr. Fowler and Messrs. Kirkpatrick and Ranger, due to the price list used, is \$10,312; if that be subtracted from Mr. Fowler's result, as previously reduced, the result is \$57,247, and that result



substantially checks Kirkpatrick and Ranger. Now that, of course, is figuring their results down to our results and is useful for this reason; it shows conclusively that the difference in the estimate of the witnesses of the Company and the City, so far as the buildings of the gas plant are concerned, lies in the price list used, and in the foundations which run down from these old buildings, standing there since 1849, from the present surface of the land to the river bed, barring the admitted error of \$1,900 on the iron work, which you will of course allow to us because the Company says that we should have it. •

Having, then, taken that into consideration, we shall ask you to find whether our contention is right in regard to those foundations. Are we obliged to pay for foundations 17 feet deep because the Company chose to create artificially a lot of land out of the bed of the river? We say that when you award them value for the land they are paid for the extra depth of those foundations, they are paid for the brick, and they are paid for the excavation which never took place, and for the backfilling which never occurred, and that we should only pay here for normal and ordinary foundations. If we are right that eliminates, then, the item of \$6,070. It is \$6,070, you understand, gentlemen, on the basis of Mr. Fowler's estimate. I don't know what it would amount to if we took Mr. Allen's. Now for instance, Allen, instead of taking 30 cents a foot for excavation and 25 cents a foot for backfilling, gets in somewhere from 75 cents to \$1 for one and \$1.35 for the other, and other witnesses perhaps at an intermediate figure. But the difference of course would be proportioned to the cost per foot of excavating and backfilling adopted by any particular witness whose schedule you might deal with, and I have already said that the same result applies to the price list.

Now Mr. Fowler lives nearest to the City of Holyoke. He says that he took into consideration the actual prices that his company paid in Springfield, and he made an investigation in regard to prices in Holyoke. So we say that, having made such an investigation, his result would come nearer to the facts of the case. Although influenced undoubtedly by the side for which he was figuring, he would come nearer the true result in the case than that of any other witness called by the Company in this case, and for that reason we selected his figures for the purpose of this comparison.

Now as we believe that we have proven our price list, and it is not necessary to go over that again, as we believe the Company has not proven any price list, and as we believe that we are right in our contention in regard to these foundations, we ask you to accept a figure of \$57,000 as representing the contract cost of these buildings in January, 1898. That figure lies between the estimates, as I recall it, of Kirkpatrick and Ranger, Kirkpatrick's figure being \$56,116 and Ranger's \$57,490. So far as the buildings are concerned, we claim there should be no averaging.

Now we come to the question of the machinery at the works. There is a great deal of difference between the various witnesses as to the cost of this machinery. We ask you to leave out of consideration Sherman's estimate of the machinery, because you will see by inspection that it is out of all proportion to all other witnesses. We have asked you already to leave out of consideration Mr. Sherman's estimate of the buildings of this gas plant, because he stated in his cross-examination with the utmost distinctness that he did not make them himself. He went and applied to somebody to make a figure for him as to the cost of these buildings, and he brought the result up here and put it in evidence. Now the man who estimated that cost was not here to be cross-examined. We could not get at him. And when admittedly a witness uses such a figure as that we hardly see how you can deal with it in the case.

But leaving Sherman out of consideration, and you will have no doubt as to the vagaries of his computation when you come, if you have not done it already, to really look over his schedule, you will find that Fowler's, Prichard's and Nettleton's estimates run between \$82,000 and \$83,000 for the machinery, and that Mr. Stedman's estimate is \$71,200. Now there is nothing in any schedule, there is nothing in the evidence, so far as we can ascertain, which enables us to discover the exact difference between these witnesses further than that it is the opinion of one or the other. For that reason we say that this is an instance where you can if you desire—and we submit it is proper to be done—average the results of the various witnesses. If that is done, then the result is something short of \$80,000, very nearly \$80,000, for the contract cost of the machinery.

When we come to the distribution system we find it necessary to prepare a new table for your inspection, because in the table previously given neither the estimate of O'Connell nor Amory was included. We have omitted from this table Randolph and Davis, because in neither case did they give the contract cost but gave the reproductive cost; and it has been necessary to omit Mr. Allen because Mr. Allen used Mr. Randolph's figures, and therefore has incorporated reproductive cost. We cannot tell what any of these witnesses would say the contract cost of the parts would be.

You will see that there is a large difference, if you inspect the table on page 318 of our brief, in the estimates of the various witnesses relative to the cost of services, and Mr. Stedman, one of our witnesses, has his service in at \$10,000; Mr. Prichard, \$12,000; Mr. Nettleton, \$10,000; Mr. Fowler, \$10,000. Mr. Sherman's estimate is \$4,650; Mr. O'Connell's, \$4,200; and Dr. Amory's, \$4,800. The reason for that difference is obviously this, that some of the witnesses apply to this case the theory of the Company. If we are getting at the contract cost of a new plant of the same design of this plant, built in January, 1898, or thereabouts, the services would all be put in at one time. That is the logic of the supposition. The Company gets the benefit of the logic of that supposition in the fact that they get an allowance for paving, which lies over their pipes. They never actually paid anything for that paving. In most instances it represents no cost to them because it was laid before the city of Holyoke was ever paved; but is there, and therefore if a new plant is built in January, 1898, of the same design as this plant, to accommodate the same service, the pipes must go under the existing paving and therefore they get the benefit of that extra cost. And, by the same token, we ought to get the benefit when it comes to the services, and they should be all put in as the plant progresses from the very hypothesis in the case.

Now Mr. Randolph, I think it was, one of the Company's witnesses in rebuttal—he is noted in our brief—admitted that if that consideration was taken into account it would reduce his figures materially. He did not say how much. Mr. Sherman did his work just that way. He put his services in at so many feet of pipe of the size called for by the services, and the laying at so much, as though they were all laid at one time.

In the mains and pavements you will see that Mr. Fowler is the lowest witness for the Company, and his estimate is not very far from that of Mr. O'Connell. No, I am mistaken; Mr. Sherman is lowest. Mr. Fowler's is the lowest, barring Mr. Sherman's figure, and is not greatly in excess of the estimate of Mr. O'Connell, or of Mr. Stedman for that matter.

The CHAIRMAN. Where it is plainly stated in the brief, wouldn't your statement of the items be of more service to us in the argument? Of course I merely suggest that to you.

Mr. GREEN. It is possible, if your Honor please; but where the argument deals entirely with figures it is very easy to drift into the figures as you go along and very hard to refrain from them. I find it easier in most instances to say that the figures are thus and so than to speak in generalities.

The CHAIRMAN. Let me ask you a question right here. I see in your table Stedman's figure is \$102,081, and I find in your summary that you put the distribution system at \$98,000.

Mr. GREEN. Well, the reason that we assign, and ask you to adopt that figure of \$98,000 rather than the figure of \$102,000, lies right in the service item.

The CHAIRMAN. Yes, I thought it did.

Mr. GREEN. Mr. Stedman obviously in his computation assumes the services put in from time to time and does not logically apply the theory which is being followed, namely, the cost of a new plant built at one time in its entirety and of the same design as the Company's plant. We have asked you, for reasons which we have stated here in our brief, to take Mr. O'Connell's figures for the cost of the mains and pavements. We ask you to take his figures, not because they are the lowest figures in the case—they are higher than the figures of Stedman, of Amory, and not far from the estimate of Sherman; we ask you to take Mr. O'Connell's estimate because he lives in Holyoke; he has had the widest possible experience in laying, not gas mains perhaps, but water mains, is familiar with the soil in Holyoke; he has laid miles upon miles of them there, and is the only witness called, as far as I remember at this moment, who has had that experience.

We ask you to accept Mr. Amory's figure of \$4,800 for the services. The result of our work is found on page 384 of our brief. I have not spoken of the piping and miscellaneous. It is

a very small item, and the result is easily attained. There is not a great difference between the various witnesses.

The total, the summary of our work, then, is that the contract cost of this plant is \$240,500 as of January, 1898, or not over that; and that result is, we claim, substantiated by the cost of Davis's plant, particularly in regard to the estimate that we ask you to make of the contract cost of the distribution system; and for the reasons which your Honors suggest I will not go into the details, except that I feel that I ought to call your attention to the table which stands in the form of a footnote at the bottom of page 384 of our brief.

Nobody has criticised the distribution system suggested by Mr. Davis in connection with a new plant of modern design, and therefore we assume it is a good one. We have shown you in our brief what Mr. Davis said it would cost to build it, and we have given you Mr. Prichard's estimate of the same thing, and we have eliminated from Prichard's estimate what we consider clearly to be the padding. But there is one other item that you must take into consideration to make a proper comparison, and that is the amount of material supposed to be in the existing distribution system, and the amount of material as provided for by Davis in his new plant.

Mr. Davis provides for a distribution system in which the pipes are much larger, the mains are much larger than in the present system, and they consequently weigh a great deal more. And it occurred to us that we ought to suggest to you some place in the evidence where you could figure out for yourselves if you desired, or where we would figure out and you could check up our work, the amount of the extra material in the pipes suggested by Davis. And that can be done by using figures given by Mr. Sherman. The work is performed at page 384 of our brief, and shows that there is 4,360,000 pounds of iron in the system suggested by Mr. Davis. From that you can easily ascertain by using the prices suggested by Mr. Sherman for the cost of iron, etc., the difference between the two.

The CHAIRMAN. You say 3,144,000 pounds in the Company's system.

Mr. GREEN. Yes.

The CHAIRMAN. Is that figured by Mr. Sherman?

Mr. GREEN. Yes.

The CHAIRMAN. That is the difference, then, between the two?

Mr. GREEN. Yes, sir.

(Adjourned to Monday, December 30, at 10 A. M.)

## NINETY-FIRST HEARING.

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BOSTON, Monday, Dec. 30, 1901.

The Commissioners met at the Court House at 10 A. M.

### MR. GREEN'S ARGUMENT, *resumed*.

During the last session I had alluded to the defects which we argue exist in the present gas plant, pointing them out somewhat in detail; and I ask you for a moment to consider with us the amount that should be allowed for those defects, the amount that should be deducted from the contract cost. First of all, of course, is the general allowance for depreciation due to wear and tear, or, as it is sometimes called, to age and use. There is very little difference—

Mr. COTTER. By contract cost, I suppose you mean the cost of reproduction. It has been spoken of in different ways.

Mr. GREEN. No, sir. There is a distinction between contract cost and reproductive cost.

Mr. COTTER. What contract do you mean?

Mr. GREEN. Contract cost is a term that is used to designate the price that one would have to pay to have this plant built, himself letting the contract directly to the brick mason, to the carpenter, to the excavator. It does not include the general charges of installation or interest during construction, and does not include the general contractor's profit.

Mr. COTTER. Of course, it is all an assumed contract. We are not dealing with any contract at all.

Mr. GREEN. No, sir, but the witnesses who made up their schedules, made them up in many cases on the basis of what it would cost to reproduce them new, by contract.

Mr. COTTER. That is what I meant.

Mr. GREEN. By reproductive cost as used by the witnesses, we understand the assumed cost to reproduce in age,

condition and form the plants as they exist; that is, in the reproductive cost some allowance is made for condition. Mr. Randolph, for instance, gave the reproductive cost of the gas plant, assuming that you could build in some way the parts of the building as they now are.

Mr. COTTER. It has been suggested here that the cost of reproducing that article anew might be considered. Then, if you make allowance for the depreciation, that would reach your result, wouldn't it?

Mr. GREEN. If the cost of building anew a plant of the same design as the present plant, and then making proper allowances for condition, for defects and depreciation would reach our result, that is, the result we are after. But reproductive cost does not represent to us the value, the present value of this plant, because reproductive cost as used by the witnesses, only considers depreciation for wear and tear; it only considers the present physical condition of the buildings.

It is admitted by the witnesses on both sides that there is a depreciation for wear and tear in the buildings and machinery, equivalent to the general charges of installation, interest during construction and so on. That we have dealt with already and references to the evidence have been given you. So that, if we argue on the contract cost which we have suggested, about \$240,000, a depreciation of, say, 12 per cent., a figure which we suggest in this case, there would be a total of \$28,000 in round numbers, to be allowed us for this form of depreciation. But this is not all. This allows for depreciation for age and use, or for wear and tear, I might more properly say, alone. There should be some allowance made to us for the defects that we have alluded to, which come outside of this depreciation. And I call your attention first, to the question of the holders and covers. Now there are three holders of small capacity, connected with this plant.

The CHAIRMAN. You have already argued, Mr. Green, if you will let me interrupt you—I don't know as I ought to—on that subject.

Mr. GREEN. Now, I am coming to the amount to be allowed if your Honor please.

The CHAIRMAN. Yes; all right.

Mr. GREEN. Now, these three holders cost a certain



amount of money, concerning which we will say—we have given the exact figures in our brief, but we will say in round numbers \$40,000. Three of them exist by reason of the fact that the plant is the result of growth, and we say that two holders will do the same work, and economically are suitable for the plant.

Now, there is a good deal of evidence in this case as to the cost of suitable holders to do this work, not only from our witnesses, but from Mr. Randolph; and it is clear that one holder could be built that would do the work of the number 2 and number 3 holder for somewhere in the neighborhood of \$24,000. Understand, in all instances, I am using round numbers. The exact figures are given in our brief. If that is the case, we ask for an allowance of the difference, of some \$16,000, if I figured mentally right in the computation. Yes, that is right, the difference between the cost of one holder, which would be a new holder and do more work, certainly as much work as these two holders.

But there is a further point for you to consider. We must have, as we believe we have conclusively shown, in the near future, another holder, which still further complicates the question; and we must go to the additional expense of installing that holder. And the result is that we will have four holders doing the work of three holders; and as I have suggested, in order to get those four holders, we must go on to our lot and destroy one of the holders there, or build it away from the works.

We ask you to take that fact into consideration. Then we ask you to consider the covers that are over these holders, and recall for a moment our argument that the covers may be worth something, but that they are not worth the cost of building them.

Is there any test, Mr. Chairman and gentlemen, by which we can gauge the worth of those covers? Well, there has been a test suggested by Dr. Amory. He says that the covers are of some advantage; they save a little snow shovelling in the winter, and are of some benefit in minor details, the total of which he states as a matter of some \$150, as I recall it. Now the fixed charges on those covers, taking the contract cost of the covers, is over \$900. In other words, then, we are paying out annually

in one form or another for those covers \$750 more than we ought to pay, on the suggestion of Dr. Amory. There is a footnote which contains the figuring on page 385 of our brief.

So that we ask you to consider all these facts. You perhaps cannot figure it out exactly on one line of argument or on the other, but you can take these various factors into consideration and strike a figure which would fairly represent the cash allowance for this defect; and, after suggesting the figures in our brief, we ask you to make an allowance of \$20,000, which, we think, considering all the facts in the case, is but fair.

So far as the tar and oil wells are concerned, we say that Mr. Stedman's suggestion is a good one, is logical, and that you should allow us \$2,000, for reasons already argued, on the contract cost of these eight little tar wells.

In the purifying plant we can consider two propositions: whether it will be necessary in good practice to enlarge this system by adding to it, practically rebuilding it as it stands, or whether it will be good practice to remove it and install a new plant. We argue with a great deal of earnestness, out of both the evidence in the case and from the facts which I alluded to before, that one or the other must be done. And if it is argued by our friends that we can properly add to the existing plant, and therefore the cost should be charged to extensions and is not any form of depreciation, and should not be allowed to us as a defect in the plant, we suggest this: that it will cost more, according to their own evidence, to add the necessary pans and make the necessary alterations to the existing plant than it would to put in entirely new machinery to do the required work.

Now if that is so—and it appears to be conclusively so from the evidence—then the existing machinery is of no value to us. We take Davis's estimate of the cost of new purifiers and pans, taken from his cost of a new plant, and we take Mr. Randolph's statement of what it would cost to add the necessary pans and make the necessary changes in this plant. On the other hand, if any attempt is made to build anew, why, it involves an extremely large expense, because it involves the tearing down of the walls of the present building and involves the walls of some of the surrounding buildings, so that we get into a very much larger expense.

There is another point to be considered in this connection, and

that is, admittedly, that the scrubbers are at the limit of their capacity. Mr. Randolph says so in their rebuttal, and they must be replaced. That comes into the same general plant. So that, taking those facts into consideration, taking the smaller allowance of the two propositions, considering the necessity of replacing the scrubbers, we say that an allowance of \$12,250 is fair. That is an intermediate figure between two results.

In the distribution system we have pointed out that the leakage account caused an unnecessary expense, an unnecessary cost in the manufacture—an abnormal cost; and I have suggested to you that in Vol. II, page 201, the formula can be found for computing this. We have computed it for you, and we believe that the computation is correct. It amounts in the year 1897-8 to 2.8 cents per thousand feet sold, or \$1,680. That is, computing the excess of leakage at this plant over what we claim to be normal leakage, average leakage, of companies of the same relative size and relatively comparable with the City of Holyoke, that means that we are losing the interest on over \$33,000 a year at this plant, or will be losing it unless something is done to correct that leakage account. That does not necessarily mean, Mr. Chairman, that \$33,000 should be deducted from the contract cost of that plant. It does mean that \$33,000 should be deducted unless a smaller amount will correct that leakage. So that we are immediately led to the question of what should be done—what must be done; and it is clear, I think, that some new mains should be laid; that some of these small mains should be taken up; that the distribution system in some way should be remodelled; and we have presented for your consideration two or more propositions for treating this matter. The cost to do this is somewhere about \$15,000; and inasmuch as the leakage accounts warrants an expenditure of more than this amount, we say that at least that amount should be allowed us, on the ground that the system is defective, and that this amount of money at least must be expended to cure the defect.

All these results are supported by one clear-cut fact, which grows out of all the evidence in the case, and that is that it costs, on the testimony of their own witnesses, as supplemented by the Gas Commissioners' reports, nearly ten cents a thousand feet too much to manufacture gas at this plant, using their

own statement of what it ought to cost as a standard. That, you can easily see by a mental computation, amounts to some five or six thousand dollars a year on the output of 1897-8; in fact, more than that, if we take just ten cents. Put it anywhere from eight to ten cents, and it means five or six thousand dollars.

That is the interest on a very large sum of money, the interest on at least \$100,000, and is indicative clearly, it seems to me, of the truth of our allegation, that unless for a less amount these losses can be corrected the plant is of little value. But, as we have suggested, for a less amount many of these defects can be corrected, so we ask not for an allowance of the full amount of \$100,000, but for a lesser amount, and we have summarized for you on page 389 the amounts that we claim should be allowed us in depreciation for wear and tear and for the defects as pointed out in this plant. Of course if a larger contract cost was taken the depreciation for wear and tear would be more. That is computed on the contract cost which we as counsel argued before this Commission should be accepted. The result is something over \$78,000. That is the sum we ask for on the basis of our contract cost for depreciation and in allowance for defects.

Having subtracted that amount from the contract cost which we have argued to you heretofore, we arrive at what we consider the value of the labor and materials in this plant at a figure to be used as a basis for obtaining the value of the plant as a going plant. This figure is reinforced, as we suggest further on, by the consideration of the cost of a new and modern plant. And having followed us in the argument thus far, and having determined or having seen our argument of the amount that should be fixed upon as the value of the labor and materials in this plant, namely, \$162,000, we shall ask you later to consider the value of this plant as indicated by the cost of a new plant. But before doing this I want to call your attention to the table on page 391 of our brief. When we had arrived at this conclusion—the conclusion I have just given you of \$162,000—we set this task before ourselves: Has the Company at any place given the probable life of all the parts of this plant? Has the Company given the present cost of these parts, in such a way that we can easily separate them? Have we the actual age of all these parts? And we found that we had. We found that we had from Mr. Hum-

phreys, as supplemented by Mr. Nettleton, the probable life of all the various parts of this plant, and so we set ourselves the task of figuring it out on this basis. We did not use an annuity table, because we hold that to be an absurd application of any principle if you expect to get at present value.

The CHAIRMAN. What is that?

Mr. GREEN. An annuity table. We took straight percentages, which we claim should be done, certainly in getting at the present value. We found that, if Mr. Humphreys or Mr. Nettleton had logically applied, as we claim, their estimate of the probable life of the various parts of a gas plant, on this basis of Nettleton's contract cost, that the present value, or rather, the depreciated cost of this plant, that is, the contract cost after depreciation had been allowed of the kind that we suggest, would have been something over \$171,000, which we claim very closely checks the computations made by counsel in this case.

We took, gentlemen of the Commission, Mr. Nettleton's figures for the reason that they are given very much more in detail, as you will easily see, than those of any other witness.

The CHAIRMAN. How do you get your annual rate?

Mr. GREEN. The annual rate would be obtained by dividing—

The CHAIRMAN. Yes, but you have got a percentage here. Upon whose evidence, from what table, did you take that?

Mr. GREEN. From no table. It is the straight percentage following the probable life. If the probable life is 50 years the annual rate of depreciation would be two per cent, if you do not use an annuity table. Then in the next table you will find the age of the part. That we have given you at the beginning of our brief. It is in the next column, I should say. We have given you at the beginning of our brief, on page 363, the age of the various parts of this gas plant, and multiplying the age by the annual percentage rate would give the total percentage rate. The computations can be easily followed. You will notice opposite cast-iron pipe, meters, shelves, gate boxes and wrought-iron pipe, well down in the column, that there is no allowance made for depreciation. That is because those items represent new material on hand, which had not yet been actually used; therefore we take them at their cost.

And just one suggestion outside of my brief here. The argu-

ment has been made from time to time in this case, that while the probable age, for instance, of a gas holder is 50 years, at the end of 50 years that gas holder will still probably be standing. And that suggestion is intended to mean this, that while the building is still standing, it is not dead, it is a live, active piece of mechanism. Probable life of any part of this plant does not mean that the buildings or the machinery will have disintegrated and passed into dust at the end of the period. It means that its valuable life, its commercial usefulness will have passed away. Take, for instance, holder number 1, at this plant. It is more than 50 years old and it is there and it is doing work; but it has lost its value, its life has passed away, because other holders have come into existence; because the total value, the total usefulness, commercial value of the three or four holders that assemble themselves at this plant after a long period of years is such that it eliminates the cost or the value of the original holder; and that is what is meant in this case by the probable life of the part.

The CHAIRMAN. I would like to understand the tables on pages 389 and 391. I want to ask you this question, as a matter of illustration, not from any conclusion I draw from it. In holder number 2, holder number 3, I see that you put your depreciation upon it under that table. You then say that the depreciated value is \$31,000.

Mr. GREEN. What page, if your Honor pleases?

The CHAIRMAN. 391. You look at the last column, and you will see that holder number 2 has depreciated about \$10,432?

Mr. GREEN. Yes.

The CHAIRMAN. And that holder number 3 had depreciated \$21,000, which would make practically \$31,000. Now you say on page 389 that there should be an allowance of \$15,000; but I suppose that that \$15,000 relates to—working up to your \$162,390?

Mr. GREEN. Yes, sir.

The CHAIRMAN. And the first table, on 391, is simply a check of that?

Mr. GREEN. That is all.

The CHAIRMAN. I think I understand it.

Mr. GREEN. I should like to make a suggestion, because it has been a matter of discussion outside, that when you come

to deal with probable life of parts, the age may not be conclusive as to the proper depreciation allowance for one particular part. If we were trying a case here for the valuation of one single building in this plant, it would be a very strong argument for the other side to make to say that the probable life does not tell the whole story. But we do argue that when you take the whole plant, made up of twenty parts, if you consider the probable life, perhaps the resulting average is a pretty close approximation of the truth. For instance, you will probably have a longer practical working life out of one part than you would naturally expect; but you would have less out of another, and that average of all will be a pretty fair sort of a check.

Well, having arrived at a value or a depreciated cost of the present plant, the value of the labor and materials in it, then, for the reasons already suggested and very ably suggested by the senior counsel in this case, you will, we expect, allow something for the various items suggested to get at the value of this plant as a going concern, with the limitations and upon the definition of "going concern" which we have suggested. Of course the expression is a general expression. The very word concern itself is explained in the dictionary, under three or four meanings. "Concern" may mean a mechanism, may mean a partnership, may mean a corporation; but as used in this case we mean a plant, a mechanism. Well, then, if we are to take cost of reproduction—

Mr. COTTER. Before I forget it, I find here on page 389, you give \$162,390. "This figure represents the fair market value of the materials and labor in the Company's gas plant." Does that include the land?

Mr. GREEN. No, sir. If you will turn with me now—

Mr. BROOKS. None of these tables include land, do they?

Mr. GREEN. No, sir, the result on page 391 is exclusive of land.

Mr. COTTER. That, then, represents the market value of the gas plant after considering all depreciation, as it is, and where it is, exclusive of land?

Mr. BROOKS. And going?

Mr. COTTER. And a going plant.

Mr. BROOKS. It is exclusive of going?

Mr. COTTER. Yes, certainly.

Mr. GREEN. It is exclusive of going, yes, sir. I am going to call your attention to this; but a question was asked me by counsel, which may have occurred to the Commission. I am asked where we got the figure of 12 per cent as a proper percentage to be used to arrive at the going qualities of the plant. That was presented in the law brief.

Mr. COTTER. Yes.

Mr. GREEN. So that I have not alluded to it. I passed it by at once.

Well, now, if you should take the value of the plant from the cost of reproduction or (you will find it on page 393), \$245,500, make the deductions that we suggest of \$78,110, and get at the result of \$162,390, you will then add some value for the land, and we have suggested heretofore a value of \$15,000. That is the value of the land as indicated by the value of suitable gas land. We do not attempt here to give the value of the land and ask you not to give the value of this land for its most desirable use, but to allow what it is worth for a gas plant. Having added that, and having added to the total of both 12 per cent. for the going qualities of the plant, the fact that it is going, the resulting value is \$198,676.

We say that this estimate is fully supported by the testimony of Davis and of Stedman as to the cost of the modern plant. That is, if a modern plant would cost \$255,114—this, of course, is also exclusive of land—and if it would cost \$57,300, as Mr. Davis suggests, to bring this present plant up into an equal capacity of a modern plant, considering that the present plant would still be old, with a less expectancy of life, his result, we claim, fully justifies the figure which we ask you to adopt, which is, in round numbers, \$200,000. The same is true of Mr. Stedman's estimate of the cost of a new plant. Each of these gentlemen used the cost of a new plant entirely as a check, as a check upon their first estimate. They do not find their value directly from it. They do not alter the results otherwise obtained; but, having reached a value from an inspection and study of this plant, they do use the cost of a new plant as another argument, as a check upon their previous results; and they both got at it in substantially the same way. They figured out the cost of a new plant, and then found the amount of money it would cost



to bring the old plant up to the same capacity and as near as possible to the same relative efficiency as the new plant, and took into consideration the difference in the value of the two. The entire computations are given on page 394 of our brief and I do not now follow them through in detail.

So that, from all the facts in the case, from the cost of the new plant, from the contract cost and the defects and depreciation of the present plant, taking all the factors into consideration, we argue to you that the value of this plant and property going is not over \$200,000.

I have said nothing about the water power. Without jeopardizing our other interests in this case, we are disposed to accept their offer of water power at this plant, for various reasons. It is a small item anyway, it is only half a mill power. While it may not be necessary to be used for power, it can be made useful apparently, about the plant, and for that reason I have not argued to you that the value or the cost of the water development, the wheels and so on, should be omitted.

Now the value of the property which is offered in this case cannot exceed the value of the franchises, good will, business, all that would be sold, if this Company was incorporated, and a person bought all the stock of the concern. And it may be of interest, we believe it is of interest, inasmuch as a mass of evidence has been introduced here tending to show the value, so-called, of the plant and franchises, good will and business, to see what that value is, if we can do so. It hardly seems necessary to argue that we cannot get at this by capitalizing net manufacturing profit at four per cent., and I pass that for the moment. But it is clear to us that if any method of capitalization is to be applied, it must be applied to the true profits, the profits properly so called. And what are they in this plant? Now W. H. Foster presented an analysis of the Company's books, and for the year 1897-8 he showed that the Company's receipts were over \$80,000, and computed the operating expenses at \$47,136. Now I shall not go into the details, but we ask you to add to his operating expenses the omissions suggested by Mr. Chase; and we ask you also, in order to properly consider this aspect of the case—if it is worth considering at all, which we doubt—to add to the operating expenses a further allowance for the repairs that they are not making.

In other words, if you are going to find what the profit at this concern is for the purpose of capitalization upon any basis, you ought to fairly charge up against the plant the average or ordinary items of expense. We have attempted to show you, and believe we have shown, by comparison with other companies, that for the year in question, 1897-8, the year taken by Mr. Foster for his analysis, which was the year during which this litigation started, that the Company had lost its motive for keeping this plant in a proper state of repair, and that it was not expending the necessary money upon this plant for repairs. So that we ask you to allow the amount we would probably have to expend, anybody would have to expend, upon this plant to keep it in proper condition, which would make an additional item of \$1,745.

But there is an item totally omitted by Mr. Foster from his calculation, and that is the depreciation account. No allowance whatever is made for this in his analysis, and we have deemed it fair to ask you to allow that amount for depreciation at this plant which is indicated by the average expenditures of the 24 companies selected by Prichard and Nettleton; and we claim it to be perfectly fair to do so in this case because Prichard and Nettleton used their tables to arrive roughly at what ought to be expected in the Holyoke plant in the way of receipts and what ought to be the profit at the Holyoke plant, for the purpose of capitalizing, not what the Company has made in the past according to its own analysis, but what it ought to have made if it had done as much business and as well as it ought.

But that does not tell the whole story. As suggested by Mr. Stone, one of the most important facts that you would investigate if you were going to make a purchase here of the franchises, good will and business, as well as the plant and property of this company, would be the price that it receives for the gas. It is a matter of common knowledge that the price is subject to the control of the Gas Commission. It is a matter of common knowledge that the price of gas has been forcibly cut down in Springfield, our next door neighbor, and that it is being cut in other places throughout the State. And the question is important: Is the Holyoke Company getting more for its gas than it ought? Can a purchaser maintain that price, or must he figure on a lesser price?

Now how would you make up your minds on that point? This litigation has been in existence some years. It is obvious to you, gentlemen, that the Gas Commission would not interfere with the running of this plant while at any moment the property is liable to be taken over; and therefore that would be a reason, and an obvious reason, for perhaps a present high price of gas in Holyoke. Well, we say that the only test, the only fair test, that can be applied would be the average results throughout the State, what the Gas Commission allow other companies in Massachusetts to charge for gas, of relatively the same size as Holyoke. Therefore we have averaged up again Prichard's 24 companies, and we find that the price received for gas in Holyoke is excessive as indicated by the average of these 24 cities. So that we say before we can get a result to capitalize, that you must figure upon a price which represents the probable price that you can in the future receive in Holyoke for gas.

Well, having made all these allowances, the true profit to be considered for capitalizing purposes at this plant is something a little over \$15,000, \$15,573; and if that is capitalized at an interest rate, then the value of the entire plant, good will, franchises, business and everything, is only about \$300,000.

The CHAIRMAN. At five per cent.?

Mr. GREEN. Yes, capitalizing at five per cent.—on a five per cent. basis. But, gentlemen, you might ask yourselves this: Has there been any sale within recent years in Massachusetts, properly before us, that indicates anything as to the value of the plant, franchises, business and good will? We say that there is one instance, and rather a notorious instance, the facts of which can be discovered from the Gas Commissioners' reports, which are in evidence.

The CHAIRMAN. Well, they are not in for everything.

Mr. GREEN. Well, we understand the facts are in evidence in regard to this sale that I wish to allude to—the Haverhill sale.

The CHAIRMAN. I do not think so. The other gentlemen on the Commission may think so, but I did not understand that you were allowed to argue it. For instance, now you are arguing that it appears in some statement made by the Gas Commissioners that there has been a sale effected in Haverhill. Now do

you think it is quite fair, or quite legal—perhaps that is the better expression to use—to undertake to use that in the discussion of this case?

Mr. GREEN. Well, if it is properly in evidence. In other words, if it is legal of course it would be fair.

The CHAIRMAN. Undoubtedly, if you say so. I don't know anything about it. But is it in evidence for that purpose? Are the Gas Commissioners' reports in for everything so that you have the utmost freedom to do it? As I recall it, they came in under objection, didn't they, Mr. Cotter, of some kind?

Mr. COTTER. Yes, I think so.

Mr. BROOKS. They certainly did, may it please your Honors, and exception; and they were to be applied, if admitted at all, to certain purposes. They were put in through Mr. Chase.

Mr. GREEN. Well, we had assumed that they were in.

The CHAIRMAN. Well, we will hear you later on that.

Mr. GREEN. I do not care to argue anything before the court as to the propriety of which the court has any doubt.

The CHAIRMAN. Our trouble is—I have not seen the Gas Commissioners' reports—but I can imagine that they put a lot of things into them that you would not naturally want to apply here in your argument. They were admitted practically for special purposes, which you used with your witnesses. I didn't suppose you could go very much beyond that. As Mr. Cotter suggests to me, as to this very fact that you speak of, we have not the circumstances, of course, as to this sale at Haverhill, and we should prefer not to go into it.

Mr. GREEN. I shall not urge it at all if the Commission have any doubt. Never until your Honor spoke had it occurred to me that there was the slightest impropriety in suggesting what I did.

The CHAIRMAN. Well, I don't say it is anything improper; I don't mean to intimate that it is—I think it is all right.

Mr. GREEN. I thought it was helpful and illustrative, and for that reason I made use of it.

The CHAIRMAN. Well, you can be heard on it, if you want to, later.

Mr. GREEN. It is suggested to me that this question is argued out in pages 227-233 of the brief; that is, of the admis-

sibility of the evidence itself. You will, therefore, when the proper time comes, determine whether it is or not. If you determine it is admissible you can read what we have here in our brief, which I think is clear; if not, why, you will of course disregard it.

The CHAIRMAN. Certainly, we will look at it.

Mr. GREEN. And further than that we do not care to be heard.

Much was said by the Company's witnesses in regard to the opportunity of increasing the business of the Company. They used it for the purpose of supplying additional profits to capitalize. We say that it is a proper consideration upon the question of whether the plant is suitable for its present use, and for the use that can reasonably be anticipated in the future, and for no other purpose.

I think sufficient has been said by the senior counsel in this case as to the depreciation of this plant and the additions to it since January, 1898. We ask you to incorporate in your award a rate of depreciation to extend from the time of valuation to the time that we take over this plant, and we suggest here in our brief the additions which have been made to this plant. You will find they are very, very inconsiderable. And we ask, and we claim, that the work that has been done here, the additions that have been made, as revealed by the evidence, show that the company is doing very little to keep this plant up to a proper standard.

I should be very glad, I might say to the Commission, if at any time you gentlemen will ask me any questions in regard to the figures, facts or reasoning as we have applied it in the brief. We have so many figures, so many facts, and so much work put into this brief, that I am always between two thoughts. One is to hurry on and the other is a fear that I may omit something that will make my line of reasoning appear inconclusive.

The CHAIRMAN. I want to say, gentlemen, that I think this brief is one of the most concise things, considering the vast mass of testimony, that I ever saw, although it is very long.

Mr. GREEN. We are glad that your Honors appreciate that work. You will see that we have tried to boil down the testimony, to collect it inside its proper headings, and to put behind every assertion that we make the book and page of the testimony which we claim warrants our statement.

We will pass now to a consideration of the electric light plant, and there are many facts which have been brought out in the evidence in regard to this plant, some of which you bear in mind undoubtedly, but I will ask you to pass over with me the main ones.

The electric lighting plant was started in Holyoke in 1884, really by the Holyoke Water Power Company. That is, they had some of their people incorporate themselves under another name, and they started at the Cabot Street building, started with one or two small Schuyler dynamos and they stayed in the Cabot Street building until the present plant was built in 1890 or 1891. Somewhere about 1888, I think it was, the Holyoke Water Power Company bought out the original corporation, and the same year, 1888, they began the erection of the wheel pit and tailrace of the plant that we are now considering. They moved into this plant from the Cabot Street mill in 1890 and 1891, and brought over with them all their electrical machinery. They did not bring over any of their boiler or steam plant. That was installed new. We have then in the present plant every dynamo, from the first Schuyler dynamo that was installed by the original company, with all the attendant apparatus.

They started apparently first doing municipal lighting and commercial lighting and nothing else, because they installed first the Schuyler dynamo, suited only to that class of work. And their distribution system was apparently started to accommodate that form of business, and nothing else. That we argue from the size of the poles and the way they have been used and other facts which have been alluded to in our brief under the title of distribution system.

Just before they moved over to the new plant, they installed their 3-wire system, and as I recall it, brought over the machines with them, when they came into the new plant. Later on, they put in their power dynamo, and at a still later period, the alternator. They have four classes of business. From the Schuyler dynamos they supply street and commercial arcs, from the Edison 3-wire system the incandescent lights, which are near to the plant, from the alternator the incandescent lights, which are at a distance, and from the power machine the motors throughout the city.

I want to call your attention strongly to one point, if I may, and that is, that the City is an abnormally large user of the electrical product of this plant. And that is of importance if you give any weight to Mr. Stone's statement that one of the important considerations in buying an electric plant is the amount of city business that that plant does, because that is something that is liable to be lost at any moment. Of course, the street arcs are all city business. That goes without saying. It is in evidence that some commercial arcs are hired by the City, but it is a small amount, and we have not taken it up. Of the 133 horse-power sold electrically, the City takes 70. Of the 1800 incandescent lights that are sold, the City takes 400; so that you see that taking it right through, the City is a pretty large customer for the product of this plant.

The capacity of the hydraulic plant and the capacity of the steam plant, I think, are clearly before this Commission. I call your attention to one thing in regard to the steam plant, and that is, that Mr. Winchester says that the capacity of those engines, 400 horse-power each, is such that when the load at this station has been running at the peak, it has been necessary to use both engines. Now that is his practical experience in this case, and it differs from the opinion, it is true, of witnesses on both sides as to what these engines might do if run beyond their rated capacity. But Mr. Winchester has been in charge here some years, and I think it is to be assumed that he would not run both the engines unless he believed it was necessary; that it is necessary is his unqualified opinion.

It will also be necessary to install here, if the plant is to be run by steam, another small engine to take the day load; that is the unqualified opinion of Mr. Warner and other witnesses called in the case. In other words, it is uneconomical to run during the light day load a 400 horse-power engine, when a smaller one will be ample to do the work; an engine of 100 or 125 horse-power would be quite sufficient. When the Company came over from the Cabot Street mill to the present site, they brought with them 18 Schuyler dynamos. Since that time they have found it necessary to install three more Schuyler dynamos. And they have had to go out in the market and buy those second-hand, with the armatures and other

things that go with them. That appears, with the other evidence which we have obtained from their books, in our brief. Yet, as you will see later on, they want us to pay for the dynamos which they have bought second-hand, the same price that they would have cost if they were new and what they did cost in the years when they were made, in most instances without any depreciation. Their witnesses have put them in without any depreciation, or at the most, about 1 per cent. a year at \$20 a light, yet they actually bought them and we say, had to buy them second-hand, at \$7 a light. The same relative discrepancy is found in all the paraphernalia that went with the dynamos, the armatures and other things. And it has struck me as something of a commentary upon the argument advanced by our friends, that the Commission must consider the cost of a new plant of exactly the same design as the present plant the only test of value here, that you must go to the second-hand shops in order to get the necessary apparatus if you were to build now a plant of the same design as this.

We claim, gentlemen, that the distribution system in Holyoke is something disgraceful. We trust that you gentlemen have seen it and have examined it with sufficient care to apply your own knowledge in this case. We claim that the poles have been in most instances reset; that is, that they have rotted once at the base and have been cut off and set down in the ground and are rotting again. We claim that the insulation upon the wires is frayed. We claim that the iron posts are rusting away. We claim that they have an insufficient distribution system; that it is to a large extent being carried upon the poles of other companies, and we ask you to believe that alike from your own inspection, from the testimony of witnesses, and from the probabilities of the case. The Company started doing a commercial and street arc business, then they added incandescent lighting, and then they added power, and then they put in an alternator and extended the system out into the suburbs. And the same old poles have stood there carrying the additional wires, being cut down and reset, until we have the distribution system which is there at the present time. And when Mr. Blood, a very candid gentleman, I submit to you, comes as a stranger



to the City of Holyoke and is so impressed as he was by the appearance of that distribution system that he paid special attention to it and it stayed in his memory, there must be something wrong with it. When Dr. Bell speaks of the system as positively as he does, we argue that there is something wrong with it. I was rather interested the other day in a paper that my brother Brooks submitted to me, which is to come to the attention of the Commissioners and which is corroborative of our claim. A statement has been prepared of the poles that are in private streets carrying the distribution system of the Holyoke Water Power Company.

Mr. BROOKS. They are all to go in, I understand. There are various statements; if one goes in they all go in.

Mr. GREEN. I understood they were being checked up by our Mr. O'Connor and your Mr. Sickman. I understood they were, or I should not have spoken of it.

Mr. BROOKS. Oh.

Mr. GREEN. On that paper our friends have a list of their own poles which carry their wires, and of the poles of other companies which carry their wires. Well, they have about 20 of their own poles and about 50 of poles of other companies, as I recall the figures, carrying these wires. Of course, it may be said, "We only ask you to pay for our poles." But we argue to you, gentlemen, that a system is not a good system which is hung upon the poles of other companies, which has its services carried almost exclusively by the poles of other companies, because you are liable at any moment to be ordered off and obliged to reconstruct practically your whole system.

There is another fact we do not wish you to disregard, which bears upon the size of the present buildings and of the present plant, and that is, that it was obviously designed to do the business of the Holyoke Street Railway Company; and you find the strongest form of corroborative evidence of that assertion in the fact that at the south end of the basement is a portion of the shafting, wheels and belting that serve no other purpose, that were put there for the obvious purpose of running the motors which supplied the power to the street railway company—motors which are now gone and leave space which is of no use to this Company or any other company as things now stand.

Inasmuch as the Company has kept no record of its electrical output, we have deemed it wise to collect for your consideration upon one page (403) of our brief the evidence relating to the prices which the company charges for its electrical current. They are useful in many ways when considering this evidence. I do not care to go into this in detail but when you come to apply the evidence in the case, it may be handy to have this all in one place rather than to have to pick it out of the various volumes.

Now let us consider this plant and the defects in this plant.

It seems almost necessary to consider the land at the electric light station from two standpoints, one of the first offer and one of the second offer. It hardly seems that it should be necessary for me now to go into this in detail. We have presented to you carefully in our brief the defects of the land at this plant as incorporated in the first offer and in the second offer. In a general way, our criticism of the first offer is this: The shape is very bad; it is a serious defect that our land should be cut into by a passageway running between the wheel-house and the dynamo building. But besides that, you will recall that under the first offer they had not given us enough land to cover our foundations. We could not get around our buildings. Our stack, whatever was under ground, was on their land. They have been very economical of space in carving out this little lot from the entire tract of land that is theirs. We were to have no access to the canal walls except by implication, no right to go upon their land to do repairs at the tailrace except by implication. Possibly that would have been sufficient. But they had not provided for our needs in any way in a dozen different particulars, which we have enumerated in our brief, and all of which are made clear by the second offer.

There was 25,000 feet of land, as I recall it, in their first offer, not all of which could be built upon, but most of which could be used. In their second offer they have extended our boundary somewhat. The same shape still remains, a flight of stairs, a little narrow tongue that runs down at the back towards the second level canal, necessarily the same passageway between the wheel-house and dynamo room, but they have extended the

total area of that offer to 41,000 odd feet. But we can build upon only about 28,000 of that. The rest of it is taken up by their rights of way and reservations for light and air; and when we do build upon the 28,000 feet, if we ever should want to, or any purchaser should want to, we must go over some of their reservations. The penstock which leads to their testing flume down in the rear will run across our land, and other reservations more particularly set out in our brief. In their first offer they did not give us any space for or any land accessible to the railroad, so that if we wanted any coal we must cart it from somewhere or make arrangements with the George R. Dickinson Paper Company, our neighbor, to get coal in on their track.

We should claim, and did claim and do claim now, that their first offer was physically unsuitable for the purposes of an electric lighting station. There is no place for a coal bin in their first offer—no proper place. There isn't much of a place in their second.

They offer in connection with this land to give us a contract for 16 mill powers that they term non-permanent. They have not in fact said to this Commission, "Here is a plant and here is some water power, and you can say what water power has been used here, and you can say what water power these people shall have, and you can say what that is worth." They have not offered the water power, such as it was, that ran with this plant, but they have said, "We will make a contract which you can award to the City." And that distinction is clearly in their minds and was clearly in our minds during the trial of this case.

Now we say—and I am not going to argue the law on this but simply the fact—we say that 16 mill powers of water is not reasonably usable with this piece of land; that if you award us this land, if we ever want to rid ourselves of it, sell it in the open market, that we cannot find a purchaser for this piece of land and 16 mill powers of water. You will have awarded us something that we cannot dispose of. We have a mass of evidence upon that. There is the opinion of Mr. Main, Mr. Manning, Mr. McElwain, Mr. Esleeck, and it may be of others that I do not just now recollect. They say that at the outside only four or five mill powers of water can be used, or would be ordinarily usable, with this tract of land, and that the land and water power would not be salable if the proportion of mill power to area of

land was any greater. They all say that except Mr. McElwain, with whose judgment I concur. Mr. McElwain says he does not believe that this piece of land is salable at all in the City of Holyoke for any ordinary mill purpose that he is acquainted with, particularly for paper mill purposes. That is a practical proposition, appealing to an ordinary manufacturer.

Well, I am not a paper manufacturer, and neither are you, gentlemen, but we can apply some of the knowledge which comes to us in advising or dealing with business matters, and put to yourselves this question: Supposing that you had on your hands this piece of land, stripped of any building, shaped as it is, encumbered with rights of way as it is, and you had to go out in the open market and sell it. What success do you think you would meet with in disposing of it, from what you know of Holyoke after all this hearing, and what you know of this land and the use of water power there?

I notice as I glance over the pages of our brief dealing with this subject that there are many other defects of a minor nature to which we have invited your attention. I will, however, pass them by, believing that you will examine them in detail when the proper time comes.

Now let me ask your consideration of the buildings that are at the electric light station. We admit that these buildings are of good mill construction as the term is used in the City of Holyoke; and inasmuch as we ask you to make a large allowance from their contract cost, or from their cost now, you will, of course, consider carefully the arguments that we advance for that allowance. As I stated, I think, in my opening when we began our side of this case, to a casual visitor who went there and saw these buildings, well put together, some seven years old, large, and apparently suited to an indefinite extension of the present business on the present lines, our argument might seem inconclusive. And they are large. They are too large. They are twice too large.

Now how are you going to treat that fact? Gentlemen, we have no doubt you believe, we think there has been sufficient evidence in this case showing the present state of electric art to fully demonstrate, the contention of our witnesses on this point. It was suggested in cross-examination by our friend Brooks in

one of his questions, that people never depreciated buildings on account of their extreme size. Possibly there might be something in that, if you use depreciation in some limited or restricted sense. But we stand firmly upon the position that these buildings are to be valued for the purpose of their use, and we say that when you consider the purpose of their use, then they are not to be valued except upon the basis of what the business needs. In other words, Mr. Chairman, supposing that this Company, instead of having moved over from the Cabot Street mill, was still in the Cabot Street mill doing business. It is in evidence that that mill is substantially idle. I believe one concern occupies part of the floor space. That is in evidence from Mr. Sickman and is cited in our brief. Supposing that this case had arisen. Supposing that one company had moved out and the only business carried on in the Cabot Street mill, with its four or five stories and its many thousand feet of floor surface, had been the electric lighting business, and the Company should come along with the proposition that we take the entire plant including the Cabot Street mill. Obviously we ought not to buy the Cabot Street mill in order to do an electric lighting business, and we say just as obviously we ought not to take these buildings at their cost, or their reproductive cost, if they are too large, if we do not need buildings of the size of these that exist.

I do not know that it is necessary to elaborate upon the argument. That is our position, and it must appeal to the Commission either as sound or as unsound. We stand in the shoes of a man who is looking for a plant, and we suggest that his first statement would be that he does not need buildings of any such size as these. When you pass a certain amount of floor space the rest is wasted. We do not want to have tenants upstairs, as has been suggested by the other side. We do not want to buy this building for the purpose of rental. It may be that we could clear out that second story and put some manufacturing plant up there and sell it power. I don't know whether we could or not. That is not our purpose in getting these buildings, and it is not the purpose intended by the statute in awarding the buildings to us. We might put a roof garden on top, for all I know—they haven't one in Holyoke—and might make that pay, or might do lots of other things. But when it comes to a ques-

tion of the value of these buildings, then you should award the buildings to us on the basis of the amount of floor space that we reasonably need or are going to need.

Our witnesses say the buildings are twice too large. Mr. Blood says so, I think Mr. Stone—I am speaking off-hand, without reference to my brief—and I am positive that Dr. Bell says so.

The engines in this plant are simple non-condensing engines, and comparatively new—been run a few days a year. They are designed for an auxiliary steam plant only. The boilers are five in number, one used for heating; they run the load with three and have a spare boiler. The testimony as to their condition is somewhat conflicting, particularly as to the condition of the boilers, there being some considerable evidence that since the starting of this case they have been allowed to become dirty, rusty and ill kept.

The electrical machinery at the station is to be criticised for its type and age, not for its condition. As far as the evidence in this case reveals, it has been well taken care of. But our argument here is that if you can find one machine, or if there is in the market one machine which will do the work of five or six, immediately that machine comes into use, is demonstrated to be a practical working machine, then those five machines are worth no more than the cost of the one machine. Why, it is one of the most common things in the world in the cotton business for a company to install new machinery, and have something put upon the market within a month of the installation so much better than their machinery that they cannot afford to keep it, and it is all put into the scrap heap. And (I cite it merely for illustration) it came within my knowledge once that a company bought, had put upon the cars and delivered at their mill some \$10,000 or \$15,000 worth of machinery, and before it was set up there was put upon the market a new class of machinery designed to do the same work, so much more efficient than their purchase that they never set it up on their floors at all, but had the new machinery, the new type, sent on to them.

That illustrates what I mean. We do not mean to say, Mr. Chairman, that if you wanted to do the business that one Schuyler dynamo can do, if you wanted to supply only 50 lights, that a Schuyler dynamo is not entirely suitable for doing that work.

I think it is very likely a Schuyler dynamo would be just as good for that work as any other dynamo. But we do say that when you come to supply 300 lights, that an aggregate of 12 or 14 Schuyler dynamos is not as good as one dynamo designed to do the same work. It is not as efficient. The number of machines, the number of belts you have to have, the amount of extra mechanism and other things going with them, tell against the use of the large number of smaller units. And we are fully borne out by the facts in this case. In every instance, may it please your Honors, where the witnesses in this case have disagreed, we have tried to find for you the actual facts as disclosed by the evidence, that you may by their aid weigh the statements of the witnesses pro and con.

Now there is not a witness in this case, called by the petitioner, who has had charge of the installation of dynamos during the past few years, who has not been installing large units. Mr. Prichard and Mr. Robb occur to me at this instant; I think there are others. No matter what they say about the small-sized units, they do not put them in. It is like the covers in the gas plant. No matter what they say about them, they do not build them. And no matter what they say about these small sized units, they do not install them, but they install large units.

As far as the hydraulic machinery is concerned, there is very little to be said. The one chief criticism is that the wheels are vertical wheels, and that, while vertical wheels are a good thing very likely, under some circumstances, for example, where the plant is directly overhead, yet if it is desired to carry the power off horizontally, there is some advantage in having horizontal wheels. It is not in itself a very large matter, but in connection with other factors, which must be taken into consideration, it does cut some figure in this case.

Now we set before ourselves in the beginning of the case this problem: What would it cost to remedy these defects? There they are; large buildings, four systems of generating electricity, four classes of dynamos, not interchangeable. If you have a little power business and a little incandescent lighting, and a little commercial lighting to do during the day, you must run all the systems to do it, and we said, supposing that this plant is taken over, what is it going to cost to remedy these

defects? That cost may be indicative of something in this case, and Dr. Bell and Mr. Blood considered in our behalf that proposition. But you cannot help us with the buildings that way. The buildings are there, and they cannot be properly altered; and I want you to consider that fact.

Our friends dispute our contention, that if in January, 1898, a person was building a new plant, direct-connected units would be used. Nobody disputes, as far as I understand, that if you were installing a new plant to-day that you would use direct-connected units. Do you realize that the plant that now exists is of such a type that you cannot use direct-connected units, because of the combination of a water plant and steam plant? The shafting from the water plant comes in on one level; the engines are on another level, the floor of the dynamo room is on another level. Now, if you are to have direct-connected units, the shafting from the water plant must come in so as to be on the same level with the necessary mechanisms in the engine rooms. Unless we go to a most extravagant outlay and practically rebuild the entire plant, it will be impossible for us to avail ourselves at any time in the future of direct-connected units. That they are coming into use; that they are more economical than belted units, and that that economy is increasing from year to year, is hardly to be doubted.

Now are you not to take into account for our benefit the fact that if you award us this plant you award us a plant of such a nature that we cannot use in it the most advanced type of electrical machinery? The expense of remodelling this plant, the expense of putting it into condition to use these direct-connected units is so great that it was not worth considering. You will have to take care of that defect in the amount of your award. But, as far as the machinery is concerned, taking into account the engines, boilers, electrical machinery and distribution system, Mr. Blood says that for \$43,000 we can put this plant into a state of efficiency something like a new and modern plant.

Dr. Bell says that we can get much better results by an expenditure of 69 odd thousand dollars. In fact, he says by that expenditure, we could bring it into substantially the same state of efficiency as a modern plant. The only difference would be that we should still have an old plant built over, with a less expectancy of life than a new one.



Well, now, gentlemen, what will it cost, or what would it cost, what ought it to cost in the City of Holyoke to build a plant sufficient to do the present business of the Holyoke Water Power Company? What ought it to cost; for the cost is the important thing. We have had three witnesses, or three sets of witnesses prepare estimates upon that point, and they have submitted to you more or less detailed schedules, setting forth the various appliances, mechanisms and buildings which they suggest for a plant costing the amount stated by them. We regard this evidence of great value. We have contended for it throughout eighty-six hearings, and I suspect have clearly made known our contention. We claim that the plants that we suggest are not ideal plants in the sense of being something which does not exist; we claim that they are practical, working plants. We claim they represent in a general way the type of plant that a person would have built in January, 1898. They are of two kinds. We have really suggested four plants, through three witnesses. Mr. Warner suggests a plant using direct-connected units, with a 2-phase alternating system. Mr. Blood suggests substantially the same plant as Warner. Dr. Bell thinks that in January, 1898, a plant would have been built with just two systems, not four systems but two systems, using a short jack shaft. Mr. Blood, when he comes to consider the question of what will have to be done with the existing plant, suggests that two systems be used, an alternating system to do most of the work, and three, I think, 125 light machines for arc lighting, leaving the polyphase system to do the rest of the work. I want that to be kept in mind, because I shall allude to it again.

We consider Mr. Blood's second suggestion of a great deal of importance, if some of the contentions of our friends upon the other side are upheld before this Commission. We have another witness in this case who supports our contention, and that was Mr. Woodward, who was called by the petitioner to testify on another aspect of the case, I have forgotten what. He was asked in cross examination, if he were building a plant new in January, 1898, whether he would use one system or two. He thinks if he were building a plant new in January, 1898, he would use two systems, just two systems. Mr. Woodward does not suggest four systems. You see, he comes from a Providence plant, where they are using one system for a good deal of their work.

Mr. BROOKS. What page is that?

Mr. GREEN. I don't remember. I am using it a little out of turn. It is set out fully somewhere in our brief, and I will find it for you on adjournment.

Mr. BROOKS. Oh, it doesn't make any difference.

Mr. GREEN. We say, then, that if a person was to consider the cost of a new plant in January, 1898, he would consider either the cost of a plant of one system using direct-connected units, a two or three-phase system, or he would consider the use of two systems, using a short jack shaft, using a polyphase system for all electrical service, except the arc lighting, for which he would use two or three large units, 125 light machines, and that the expense of operating such plants is approximately the same, such difference as exists being in favor, of course, of the one system.

We have prepared our brief upon the supposition that the valuation in this case is as of January, 1898. If the valuation is as of to-day or some time in the future—I don't know when it is that my brother is going to suggest to you that you value this plant—we say that the most advanced type of plant that we have suggested is unquestionably the type of a plant that would be built new and the cost of which is to be considered in getting at the value of the existing plant. We believe, and our witnesses believe, and they so state—I call to your attention the positive statement of Mr. Blood and Dr. Bell upon this subject—that no purchaser would consider the reproductive cost of the present plant in obtaining the value of this plant, and that no seller could dispose of his property on that basis; that so far as cost entered into this question, the basis would be the cost of a modern plant.

Mr. Warner estimates that a new plant to do substantially the same business done by the present plant would cost \$171,000. Bell, Blood and Stone suggest that the cost of such a plant would be about \$140,000. The difference between the two estimates lies in the elaborateness of the plant suggested. Mr. Warner puts in everything of the very best. An examination of the details as shown in his schedule demonstrates that sufficiently. And by so doing he gets a rather smaller operative cost. In other words, he puts in the very best of everything, believing that in the annual expense he saves enough to war-

rant the original expenditure. But, as you will see in a few moments, all the plans produce just about the same result when tested by operative expense.

We suggest that plants of the type proposed could be built anywhere in Holyoke where condensing water can be obtained. And it is at this point that our friends argue that there is no place in the City of Holyoke that a man can get condensing water; that the Company owns the whole river front, and that if you think of using a cooling tower, it will cost a good deal more after you have built it to run condensing with compound engines, using the cooling tower, than it will to run your engines simple non-condensing; that it is not possible to drive a well or to get water in any other way; they control the whole thing. Therefore, they say, you must in the future, if you ever take this electric plant without taking our water plant, you must, for the sake of economy, run your engines simple non-condensing. They prove it by Whitham, a very ingenious gentleman, who demonstrates that if you should put a cooling tower on the site of the electric light station and run the steam plant all the year round by the use of the cooling tower, it will cost \$1,248—I think those are the figures, I am speaking offhand—\$1,248 more a year to get along that way than it would to run the engines simple non-condensing for the same time. We have, in our brief, called your attention to the computations by means of which he reaches this result. I won't go into the details. It strikes me as a little singular that he should make this argument. It amounts to saying that it is cheaper to run all the while with simple non-condensing engines than it is to run with compound condensing engines. He does not save much coal, you notice, by running condensing when you come to figure it out. When Mr. Main figures on a similar proposition—that is to say, when he estimates the amount of coal that would be consumed if the engines are run on a 200 horse-power average load throughout the year, using simple non-condensing engines, he obtains an item for coal of \$10,084. He says that if the engines are run condensing and are compounded, the coal bill will be \$7,019. In other words, there is a saving of over \$3,000, according to Main between those two positions. Mr. Whitham, you see, only saves \$1,500 in coal between the ex-

pense of running the engines simple non-condensing and running them compound condensing.

Then there is another assumption in Mr. Whitham's estimate which we claim is radically wrong. He assumes in obtaining the fixed charges that the standard of comparison between the cost of operating a simple non-condensing steam plant and a compound condensing steam plant is not the first cost of a compound condensing plant under normal conditions; but the cost of installing this particular plant, necessarily more expensive than a compound condensing plant, larger, adds to it the cost of compounding and condensing it, and uses the total of the two figures as standard of cost; and then he assumes a very large depreciation and repair account, as we shall show you in a very few moments.

We think Warner's conclusion is a fair one, and that a cooling tower could be installed which would operate even at this site a plant economically with compound engines running condensing.

The chief objection which is made by the petitioner to any of the plants suggested by us, is that there was no plant running. In January, 1898, upon a single system which supplied street and commercial arcs. They have a separate objection to Dr. Bell's dynamos, but the chief objection which is aimed at the systems, one and all, as suggested by Stone, Blood, Warner and Bell, lies in the enclosed lamps and the use of a polyphase system for street lighting.

Now we submit—and we have briefed the evidence upon this point and I do not care to rehearse it in detail—that Mr. Warner, Dr. Bell and Messrs. Stone and Blood know enough about this subject to be sure of their ground when they say that if a person was installing a plant new in January, 1898, he would have used these systems; that they know enough about their business to justify you in accepting their statements that such a plant would have been installed if there had been any occasion to install a new plant. It is in evidence that polyphase systems were operated, many of them, in the United States. It is in evidence that in 1897, there was installed a new plant—I think it was at Concord, N. H.—

and there the polyphase system was used. And Mr. Blood says that the polyphase system for street arc lighting was to be used, but that for local reasons they used incandescent lighting finally in the street system and that the enclosed lamps were not used.

These witnesses say, one and all, despite the fact that they cannot name a plant that was actually built in 1897, which used every bit of the mechanism which they suggest, that they have no hesitancy whatever in stating to you under oath that if a plant had been built at that time or they were to have installed a plant at that time, they would have installed it after the type that they suggest. And we ask you to believe them.

There is in evidence no plant that was built outside the Concord plant that I recall in 1896 or 1897. We ask you to believe that the art had been sufficiently demonstrated to those who were in touch with it that they would have made use of enclosed arc lamps and of direct connected units for the purpose of doing this business if they had occasion to install them. You know it is one thing, gentlemen, when you have machinery in a mill to remove that machinery and install new of a different type, than it is when you are installing a new plant to use the new type. If you have in use and operation the old mechanisms, you hang on to them until you are fully satisfied that you must let them go. When you come to lay out a new plant you can avail yourself freely of the new mechanisms which are in the market, and we say that that is the distinction between the two positions.

We rely upon the judgment of our witnesses. We rely upon their experience; we rely upon their knowledge as experts. If there is any man in this case who knows anything about electrical machinery, it is Mr. Warner. They have called him a salesman, but he is a salesman of what? He deals with apparatus, and a more intelligent witness did not appear in this case. Mr. Warner is at the present time at the head of the New England business of one of the two large companies of the United States. Now, when Mr. Warner says that in January, 1898, a good engineer installing a plant new, would have used the apparatus that he suggests, he is in a position to know whereof he speaks. When Messrs.

Blood and Stone make that same assertion, we ask you to believe it because they say it. Who knows about the practical running of electrical plants if Mr. Stone does not? Who has come into this case who has had a tittle of his experience? What expert called by the other side stands on the same plane with Mr. Stone? Here is a man who is operating electric plants of every kind and nature all over the United States—electrical railways, street lighting plants, using wafer power, using steam. Now, when Mr. Stone says that he fully approves of Mr. Blood's statement, that it is made with his authority and that he believes it, it seems to us that it ought to carry weight with this Commission. It practically means this, that Mr. Stone says to you, "If in January, 1898, I had had occasion to build anew an electric lighting plant I should have installed two direct connected units and enclosed arc lamps." Mr. Stone lives right here in Boston. They were using enclosed lamps right here in Boston; they did not use them all over the city, but they were using a sufficient number to demonstrate their practicability.

I think I called your attention to the fact that in January, 1898, as revealed in the cross-examination of Dr. Robb, there were, not in New England, but in Pennsylvania and elsewhere in the United States, a number of plants using either the two or the three-phase alternating system.

But supposing that you should believe that in January, 1898, the electric art had not quite advanced to the point that would justify the use of enclosed lamps and a polyphase system to do all of the business of this station, what then? Dr. Bell has suggested a system using large units for street and commercial lighting and a polyphase system for other work. The only fault that they find with his system that I can see, is that he would use a 5-ampere Brush machine of 145 lights. Bell says that he does not know of any place just at that time where they were using a machine of just that ampereage, but he says that he should have unhesitatingly put in such a machine if he had had occasion to put in a new machine at that time. And I submit to you that it makes very little difference whether you use a Brush machine of 5 amperes or 7. The Brush machine was being commonly used, and the criticism simply deals with the question of amperage and

nothing else—the mere question of whether it is a 5-ampere machine or some other ampere machine.

But let us go another step. Suppose that Dr. Bell does not know what he is talking about, and that Blood and Stone have wandered away from the facts and that Mr. Warner is entirely mistaken—what then? What we are after is the cost of an economical commercial plant in January, 1898, and we do not care, as far as cost is concerned, whether it is a 1-system or a 2-system plant.

Mr. Blood suggests a new thought when he suggests the method of remodelling the present plant of the Holyoke Water Power Company. He does not suggest the installation of direct connected units; he suggests the use of three 125-light machines, and two system of lighting in place of the present four.

Now, as we suggest in our brief, you can easily see by comparing the cost of the electrical machines which he suggests in his schedule with the cost of the electrical machinery suggested by Dr. Bell, that the original cost of both is substantially the same. Now Dr. Bell suggests that a new plant would cost about \$140,000, and so do Stone and Blood. Obviously, then, if the mechanism suggested by Blood in his scheme of remodelling the present plant cost about the same as the mechanisms that he suggests in his new plant, and that Dr. Bell suggests in his new plant, then the original cost of a plant constructed along the lines that Blood has suggested in remodelling the existing plant does not differ from the cost of either of the others.

Now the only commercial difference between a plant using three 125-light machines for street and commercial lighting, a polyphase system for the rest of its business (and that type of plant was unquestionably in common use, in January, 1898, and is substantially the system that Woodward approves in cross-examination), and a new plant as originally suggested by either Bell, Warner, Blood or Stone, is in the cost of operation.

The plant suggested by Blood in his scheme of remodeling the present plant is a trifle less efficient and a trifle rather more expensive to operate than any one of the three types of plants first considered, and that is the only difference. Blood says that it very nearly equals a new plant in efficiency and is about as economical in the cost of operation.

So that even if all that our friends say is true, and if we are to take January, 1898, as the period at which you are to make your valuation, then we say that the cost of a new plant much more efficient than the present plant lies somewhere between the figures of Bell, Blood and Stone.

I was asked a while ago for a reference to Mr. Woodward's testimony. You will find it cited, Mr. Brooks, at the bottom of page 415.

Having considered for a brief time the cost of a new plant which would do the work better, cheaper, more efficiently, for the City of Holyoke, I will ask you now to consider in this plant, as we did in the gas plant, what it would cost to contract for a new plant of the same design as the existing plant, that is, assuming as we did before, that the builder or owner dealt directly with the sub-contractors.

We have dealt with the buildings of the entire plant under one subhead of our brief. I think we arrange our final valuations under two headings, one for the steam and electric plant and one for the hydraulic plant. The reason is that we desired to demonstrate to your satisfaction the causes of differences between the estimates of the Company's witnesses and of the City's witnesses, and we could not do it if we divided the buildings. So that we take the buildings as a whole. We have also tabulated on page 416 of our brief the contract cost of these buildings as given by all of the witnesses. You will see that there are some very large differences between the witnesses. You will note, I think, that Robb, Prichard, Landers and Anderson all come very close together, and that Mr. Anderson, who lives in Springfield, is the lowest. You will see that Mr. Rivers is very much higher than any other witness.

The CHAIRMAN. I see your witness Blood is higher than Anderson.

Mr. GREEN. Yes, sir. The reason is this—and I intended to call your attention to it. Mr. Blood testifies that at our request he assumed the quantities of Sawin and Walther and made his computation on that basis. We desired him to do it for purposes of comparison. He would naturally therefore have a higher result than any other witness of ours and might very likely be higher than some witness of the other side. He, being



in Boston, has taken higher prices for various materials and things than did Mr. Anderson, who lived in Springfield.

In this case, as in the case of the gas plant, we wanted to convince you that we had put by themselves, in three classes, the causes of difference between the Company's witnesses and ours. We say that we have found them, and we have prepared three tables here to demonstrate to you that we have. That is, there are three computations all to the same effect, and the result we think proves our assertion. You remember that Mr. Mason at our request came in and refigured all this work, so that we might have from an outside source, as it were, some confirmation of the work of one side or the other; and by studying Bygrave's analysis, which was inserted in Vol. X, we discovered that the Company's witnesses estimate a certain number of yards of excavating and puddling and backfilling in excess of the amount estimated by the witnesses for the City; that is, in excess of the amounts estimated by Ranger and Kirkpatrick, whose estimates Mason fortifies. If you multiply this excess of quantities, then, by the prices assumed by any witness for the Company, you will have the difference between that witness and Ranger or Kirkpatrick, due to excessive quantities.

There is an item admitted, you understand, the piers over the tailrace, amounting to \$3,500, which goes to our credit. He admitted that the Company ought not to receive pay for them, after we had struggled through six volumes of evidence, more or less, on that point. And I am going to call your attention, just for a passing moment, to something which is not in our brief unless I have overlooked it in Part I.

Why should we pay, under the proposition that they have last submitted in regard to the electric lighting station—why should we pay the full cost of that tailrace? They reserve the right to build over it, and they reserve the right, I notice, to use the walls to support their building. Now Mr. Gross says, for that reason, and because the Company reserve the right to build on these piers, it will not ask us to pay for the piers. That is all right as far as it goes. But if you will examine the plan, those piers come up from the walls of the tailrace, and if they are to have the use of that as a part foundation for some superstructure later on—an extension of the Cabot Street mill presumably—why then should we pay the full cost of the tailrace, when they are presumably to have the benefit of it as well as ourselves?

My attention is called to the fact that that is in the brief. We have not omitted it, I am glad to say. It is on page 220. Not finding it in Part II, where I expected to see it, I was afraid we had overlooked it. The suggestion, although made in Part I on page 220, can properly be considered at this point in dealing with the cost or allowance to be made for defects in the present plant.

Now the tunnel contains a certain number of brick, 26,000 odd, which are there solely because they are needed to protect the penstock which leads to the testing flume of the Company. Why should we pay for those? It is a little item. It is their item. And we say, and ask you to believe, that that should not be charged to us.

Now if you will take those items, and take also the difference, as already explained, between any witness on their side and our witnesses, due to the price, and tabulate them, you will find that they explain substantially all the difference between the estimate of any witness for the Company and Ranger's estimate.

For instance, on page 417 of our brief we took Mr. Prichard's estimate. He estimates that the contract cost of the buildings is \$109,610. Now if you subtract from that the differences suggested due to the price of materials, to excavating, puddling, backfilling, to the piers and to the foundations just alluded to, which are necessary to carry the penstock which leads to their testing flume, the result is \$78,713, which is approximately the same as Ranger's estimate of \$77,333. In other words, it substantially explains the difference between the two figures.

In order that our suggestion might be fully demonstrated, we took two other sets of figures. We took Rivers's estimate, and he, as I recall it, is the highest of their witnesses. We took Mr. Anderson's, who, as I recall, is the lowest of their witnesses. You will see that these deductions bring one estimate to \$76,000 and the other to \$75,000, approximately the same as Mr. Ranger.

We discovered a curious fact in regard to Anderson's calculation and call your attention to it on page 418 of our brief. Mr. Anderson's schedule as it appears printed in the evidence has its excavating by itself under a separate heading, and he there charges for puddling \$1.35 a yard. When we came to examine the details of the buildings themselves we found puddling items,

and we found they were the same items previously given under the heading "excavating." That is, where, for instance, in his excavating he says "boiler-house," he has so many yards of puddling at \$1.35 a yard. Now if you turn over a page or two to where he has the buildings by themselves you see under the details of the boiler-house the same number of yards of puddling, but it is only \$1 a yard there; and it looks as though Mr. Anderson's estimate, which is the lowest of their estimates, had not totalled up quite high enough, and he had cut off the top items which represented excavation and had put them by themselves, but his scissors had not gone down as far as the puddling items. How else could Mr. Anderson have puddling at \$1 a yard for the boiler-house in one place and \$1.35 a yard for the same number of yards in another? Why this happens is perhaps of very little importance, but it struck us as very curious, and the result certainly amounts to this, that he has in his estimate \$2,700 or \$2,800 too much for puddling, because he has charged for it twice.

Now the buildings of the steam and electric plant, as a whole, would cost to duplicate, on the basis that we have just considered, and according to Ranger, some \$37,653. We have taken that amount out of the previous table on page 315 of our brief. We ask you to accept those figures. We have pointed out to you from page 416 to page 418 of our brief the causes of difference between their witnesses and ours. I have already argued to you sufficiently in regard to our price list. And we believe that, unless it is in one particular, and that is the slope at the wheel pit, our witnesses are right in their allowances for excavation and backfilling and all else. So that, we say, of the questions at issue, one of which is admittedly in our favor, our witnesses are in the right; and being right, having proved our price list, we are entitled to a finding of \$37,653 as the contract cost of the buildings.

The machinery item we can deal with very simply. There is not such an enormous difference, although there is some considerable difference between the estimates of the various witnesses. We have not asked you, as I recall it, to take the lowest estimate given on our side of the case, but we argue to you that Mr. Warner knows more about the cost of electrical equipment than any other witness in this case; that he must, from the

nature of his business, from his associations; and therefore we say to you that you can properly accept his estimate of the cost of the machinery in the dynamo, engine and boiler buildings, an item of \$44,117.

Mr. Warner is not the lowest witness in the case on machinery, because Mr. Green is less than Mr. Warner, and Mr. Warner is higher than Messrs. Stone and Blood. But it seemed to us that if Mr. Warner's qualifications mean anything they mean that he knows the going price of electrical machinery, and therefore we ask you, because of his qualifications as an expert, and because his figures represent a fair intermediate figure, to accept his results. And for the same reason we ask you to take Mr. Warner's estimate of the cost of shafting and belting in the tunnel. He is not the lowest witness; there are witnesses on the other side who give figures lower than his, one or more; but inasmuch as we have asked you to accept his estimate in the dynamo room and the engine-house, we ask you for the same reason to accept it in the basement.

In the miscellaneous column, after the piping has been allowed for in the general item of \$44,117—that is in the machinery in the dynamo and engine room—the balance is so small and the witnesses are so close together that it is hardly worth talking about. We have suggested that Mr. Allen's figure of \$1,040 be accepted in order to dispose of it as shortly as possible, and on the ground that it ought to be sufficiently favorable, as our Supreme Court says, to the petitioner.

In regard to the distribution system, your attention is called to the fact that Mr. Whitham's estimate is the highest and Mr. Warner's the lowest. You will note that several witnesses called by the petitioner use the same figure—Allen, Anderson, Green, H. A. Foster—and that there is a very slight difference between the estimates of Robb and Blood, Blood being a trifle higher than Robb. From the fact that there is not a great difference between the witnesses on this point, and owing to the fact that Blood and Robb come within five dollars of each other, we have asked you to accept Blood's estimate of \$41,328 as the cost of the distribution system.

And for the water plant, for the same reason already argued in regard to the steam and electric plant, we ask that Ranger's

estimate of the buildings and the wheel pit, tailrace and tunnels, namely, \$39,681, be taken.

The witnesses, many of them, very closely agree as to the cost of the machinery in the wheel house; there is very little difference. The lowest estimate it seems, is by one of the Company's witnesses. Inasmuch as we rely upon Main and Manning as being expert in their line, because we think they know that of which they speak, and not for the reason that their results are the most favorable that we could pick out of the case, we ask that Main's figures of \$12,470 be taken as the cost of the hydraulic machinery. We ask you to charge up to the hydraulic plant one half of the cost of the belting and shafting, because we say that it is made necessary by the separation of the wheel-house from the dynamo building, owing to the existence of the passageway. Dr. Bell has stated that that is a fair apportionment, and nobody has disputed his statement.

Then, if your Honors please, if our argument is sound, if our figures are properly taken, you will find the contract cost of all the buildings of this plant to be \$77,330, and that the buildings of the steam and electric plant and the machinery of the same amount to \$134,050, and that the contract cost of the water plant should be \$62,064, or that the contract cost of the entire steam, electric and water plant is \$196,114.

(Noon recess.)

## AFTERNOON SESSION.

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Mr. GREEN. In considering the depreciations and deductions which should be made from the contract cost of this plant, we set ourselves the task of ascertaining just what had been allowed by the witnesses on both sides, and of putting it into some tabulated form, so that the Commission could understand it at a glance. You will find the results of our work on page 421 of our brief. We have given you the name of the witness, and the book and page to which you can refer for his evidence. We have given you the contract cost as estimated by each witness, the total amount of depreciation, both in dollars and cents, and in percentages, and the annual rate thereof. In some cases we found the annual rate by dividing the total by seven, and at other times by multiplying the annual rate by seven. The reason we use the figure seven is that H. A. Foster himself considers the plant, in all its parts, seven years old. As a matter of fact, it is rather more than seven years old, because, as you will recall, a great deal of the electrical machinery dates back to years approximating 1884. There are now in use various mechanisms which were installed at the beginning of things.

You will see, if you inspect this table showing the depreciation allowed by the Company, that one witness allows no depreciation whatever, and another witness allows less than one per cent. a year, and no witness allows as much as two per cent. a year—the average depreciation being obviously a trifle over one per cent. a year on buildings, machinery, and everything else. That is the actual depreciation that is allowed by the Company's witnesses in getting at the present value of the plant.

Other witnesses give what we call a theoretic annual depreciation, differing somewhat from their allowance for actual depreciation, using the theoretic annual allowance for the purpose of studying the operative cost of the plant from year to year. We have given you also their theoretic allowances. And no witness for the Company recognizes in this plant any depreciation except depreciation for wear and tear.

The City's witnesses, on the other hand, estimate that the total depreciation is from 31 to 35 per cent of the contract cost,—or from a little less than four per cent a year to about five per cent. a year.

We call your attention to the fact that Dr. Bell did not estimate the contract cost of the Company's plant, so that his depreciation is based upon the present value which he gives of the plant and Warner's contract cost.

We also thought that it would be interesting for the Commission to know just how all of the various witnesses arrive at their depreciation results, and so we went through their methods and have summarized them on page 422 of our brief. They fall within three classes. One class finds a depreciation by inspection solely. Another class finds depreciation by multiplying an annual rate by the age of the plant. Of the Company's witnesses who do this H. A. Foster is the leading witness.

Mr. BROOKS. Oh, no.

Mr. GREEN. I think I am right. H. A. Foster arrived at the depreciation by finding the annual rate and multiplying that by the age of the plant, and calling the result the total depreciation.

Another class of witnesses found the value of the plant from the operative cost,—found it directly, believing that to be the most satisfactory test. It is needless to say, from the theory on which the case has been tried, that those witnesses are the City's witnesses.

We regard the depreciation,—or, rather, the determination of the present value of the plant from the operative cost as the most important of the various methods, and deal with it first. We expect that the Company very likely will argue to this Commission that this is a good plant, and all right, because it operates at about a normal cost, as they will claim. Some of their witnesses have testified that a plant ought to operate at about 60 per cent. of the gross receipts, and they have put in evidence an analysis of the gross receipts and operating expenses of this plant, through Mr. W. H. Foster, which shows an operative cost of about 60 per cent, and that operative cost includes water power at about \$12,000 a year. That argument—if they apply it—we have to anticipate—is inconclusive, for various reasons.

The first objection is that their results are not based upon the output of the plant, but are based upon the prices received for their output, the receipts of the plant. What the electrical output of this plant is, no one knows. No records have been kept, and it can only be approximately determined. No accurate result is possible, under the evidence of this case, obtained or obtainable.

When you come to deal with the question of prices charged by the Company, we have no way in this case, as we had in the gas case, of conclusively determining whether the prices charged by the Company are relatively high or not. They appear to be high. If you consider the price received for street arcs in Holyoke, \$100 a lamp a year, and compare it with the average price received by the 24 companies, as a standard of comparison, the petitioner is receiving seven dollars a year too much per lamp. The average price, as I recall it, is about \$93 for the 24 companies. But the Gas Commissioners' reports are not in such form that we could find the amount charged for power, for incandescent lights, or commercial arcs by other companies in the State.

Again, the Company, in order to determine its operative cost, has had to assume something for water rent,—or they have seen fit to assume something for water rent, for they have gone outside of the facts, and have assumed \$12,000, for which assumption there is no warrant, except their desire that this Commission find \$12,000 to be the rental value of the water per annum.

The conclusive answer is that the standard of comparison taken by the Company's witnesses is a very low one. It is in evidence in this case, through Mr. Prichard, if not through others, that there have been no new plants installed in this State for some years, at least, before the date that we are discussing, January, 1898. It is in evidence, of course, that Mr. Prichard has adopted larger units for his station at Lynn, and that Dr. Robb adopted larger units in Hartford. And it is in evidence that Stone & Webster remodelled their Lowell plant, and one other,—I think it is the Brockton plant. It is in evidence that the Narragansett Company has installed larger units and different mechanism, so that it must be obvious to the Commission that the various companies which were used by Prichard and others in their comparison, and from the operating



expenses of which they deduced their figure of 60 per cent., were operating under old-fashioned circumstances and with old-fashioned machinery.

In considering companies that were to be used as a standard of comparison, we have in our brief called your attention to the Springfield Company and the Worcester Company.

Mr. BROOKS. From the Gas Commissioners' reports?

Mr. GREEN. From the Gas Commissioners' reports. Assuming that we have a right to so direct your attention. If we have not that right, disregard it. But we have called your attention to their operating expenses, assuming that you can understand from the facts there set out that they approach nearer a modern plant than the others. And we call your attention to the fact that they operate on about 50 per cent of their gross receipts. We claim that the standard of comparison is not the operative cost of a lot of old plants, but the operative cost of a new and modern plant. Taking that as a standard we set ourselves the further task of ascertaining from the evidence in this case just what the operating expense of the existing plant was,—the Company's plant,—what it has been in the past, taking the evidence of the petitioner as final on these points, and comparing the result with the operating expense of modern plants.

We found that the operating expense of this plant had been given by W. H. Foster and H. A. Foster; that W. H. Foster and H. A. Foster had both given the operating expense at the station; that W. H. Foster gives the operating expense of the distribution system alone. The results are tabulated on page 424 of our brief, and are, according to W. H. Foster, \$30,424.40; according to H. A. Foster, \$28,680.55. But we suggest that for the purposes of our comparison, any expense which is based upon the value or cost of the existing plant must be eliminated; for the result that we are trying to attain is the value of the existing plant determined by the operating cost.

We found that insurance and repair items are included by W. H. Foster. These we take out, and the result leaves the figures of these two gentlemen very much the same,—a difference of a few hundred dollars. Now, turning to the evidence of our own witnesses, we find—omitting all fixed charges and all other expenses which depend upon the value or cost of the

plant—that a modern plant after the design of Bell, Warner, Stone and Blood, would operate anywhere from twenty-two thousand odd dollars to about \$20,500.

But a careful study of the charges made, on the one side by Mr. W. H. Foster, and on the other side by Bell, Warner, Stone and Blood, reveals the fact that there is an item charged for superintendence, which is more or less arbitrary. It could well be the same in both plants, or in any plant, or on any basis, and for fair comparison, it seemed to us, that that should be made the same in all instances.

Now, W. H. Foster charged something over four thousand dollars for this item. Mr. Warner, we found, charged exactly the same amount. But Bell and Stone and Blood charged a smaller amount. We, therefore, added enough to the charges made by Bell, Stone and Blood, to bring their superintendence item up to the item adopted by W. H. Foster and Mr. Warner. You understand that in the case of W. H. Foster or H. A. Foster, it is an arbitrary item, an assumption, not the amount that the Company had paid. And you may assume it the same in all cases, and we give you the result of this assumption on page 425 of our brief. It leaves Mr. Warner's figures the same, and raises the figures of Bell and Stone and Blood, so that the operative charges of a modern plant with the superintendent's charge, as we have corrected it, running anywhere from \$21,000 to \$24,500.

But in Mr. W. H. Foster's estimate, and followed by Mr. H. A. Foster, of thirty thousand odd dollars, there is \$12,000 charged for water rent. That is an arbitrary charge, just the same as the superintendence. The Company never charged it, and it is assumed by him. Now, we have assumed in all cases measured water, following the lead of the company, in the actual charge made by them in their sworn returns to the Gas Commissioners. Then we have substituted, as we believe reasonably, in the figures of W. H. Foster, what it would cost for measured water, and have changed the figure of \$12,000 as inserted by him to \$5,250, which would be the amount that measured water would cost, running the plant exactly as the Company says it ran, by water all days but five or six, during the year.

Now the result is that with measured water, according to

W. H. Foster, the plant operated at an expense of \$22,889 a year. That means, then, that on the basis of operating charges, this plant is worth something less than Warner's plant and something more than the other two plants. In order to determine just what the value of this plant is, based upon these operating charges, you must take the difference between the operating charges of this plant and of a modern plant, capitalize it at the fixed charge rate and either add it to or subtract it from the cost of such new plant. In other words, take Warner as an illustration; his plant operates for \$803 a year less than the Company's plant. Now \$803 capitalized at the fixed charge rate generally adopted, 12 per cent, amounts to \$15,325. Now if that is subtracted from the cost of his plant, namely, \$171,000, it leaves the value of the present plant on the basis of operative charges, accepting their own figures as correct, and only modifying their charge for rent, \$156,151. Conversely, in the case of Bell and Blood, we have capitalized the difference and added to the cost of a new plant as estimated by these gentlemen. The result is, as tabulated on page 425, a value of this plant based upon comparative operating charges ranging from \$147,750 to \$156,000 and some odd.

The CHAIRMAN. Why do you subtract in one case and add in the other two?

Mr. GREEN. Because the operative charge of the present plant is \$22,889, and Warner's plant is \$21,000.

The CHAIRMAN. I see.

Mr. GREEN. We claim, then, that Warner's plant is better than the present plant by the capitalized difference at the fixed charge rate of the operative charges. Conversely, the Company's plant is better than Blood's or Bell's by that amount, which should therefore be added to the cost of the plants suggested by them.

The CHAIRMAN. That makes that difference?

Mr. GREEN. That makes that difference.

The CHAIRMAN. You capitalize at 12 per cent.?

Mr. GREEN. Yes, sir, that is the fixed charge rate.

The CHAIRMAN. Yes.

Mr. GREEN. You will see that in this comparison the present plant is running exactly the same number of days by steam that it is claimed that the City will have to run this plant if we

take it under their new offer, and the elements of comparison are quite complete throughout.

Mr. BROOKS. I do not quite understand that, Mr. Green. Do you mean four or five days? You need not answer me unless you want to, but—

Mr. GREEN. I did not catch your question.

Mr. BROOKS. I do not understand that.

Mr. GREEN. What?

Mr. BROOKS. Your statement that "the present plant, it will be observed, is running just the number of days by steam that it is believed the City will be compelled to run it by steam under the new offer."

Mr. GREEN. Mr. Gross, to answer your question, states in his explanation of the new offer that he believes—of course there is nothing conclusive about it, but that he believes under the terms of the new offer that we shall be able to run our plant just as you have been running the plant.

Mr. BROOKS. That is, four or five days?

Mr. GREEN. Yes. And it is in evidence from Mr. Winchester that you ran in 1897-8 or 1896-7—I forget the year that he used—all but some five or six days by water, and only five or six days by steam. Assuming, then, for a moment that Mr. Gross's assumption is correct, the operating charges of your plant, being taken from W. H. Foster's analysis, are supposed to represent exactly what it cost you to operate, running every day but five or six by water.

Mr. BROOKS. I am obliged to you; I did not quite understand that.

Mr. GREEN. Have I made it clear?

Mr. BROOKS. Yes.

Mr. GREEN. We do not admit that that assumption is correct, and correct or not it is in evidence and uncontradicted that every day of restriction in excess of the five or six herein assumed adds to or detracts from the value of the present plant or the combined plant \$500.

This result, you will notice, we have arrived at in quite a different way from that followed by our witnesses, because we wanted to compare their results with the results of W. H. Foster and H. A. Foster. Our witnesses themselves determined their results, which are very closely the same as the results that I

have given, in various ways. Mr. Warner found the value of the steam and electric plant by comparison with a modern steam-driven electric plant, and then found his value for the water plant by comparing the cost of running the electric plant by the combined plants with the cost of running by steam alone at the valuation reached by him in his former comparison. Dr. Bell arrives at his value directly from the cost of operating a modern steam-driven plant by finding the cost of operation of a modern steam-driven plant including all fixed charges, taking the cost as given by the petitioner of operating the present plant, leaving out all fixed charges, and capitalizing the difference at the fixed charge rate. Dr. Bell also found the value of the present plant in a similar way, assuming that there was a 50 per cent. increase in the load. He also found the value of the present plant at its present load, assuming that we paid no water rent; in other words, assuming that we paid cash and received the plant and privilege rent free, both at the present load and at a 50 per cent. increase. We do not consider that this computation in itself is necessary. We do not believe that the Commission have any right to award this water power—water privilege—in any such way, for the simple reason that we do not believe that you have any right to guess at what we are going to have, and unless you know what you are selling us, your value will be more or less guess work. And we say that you or no other living soul can tell how many days a year we are going to run by water at this plant from any evidence in this case. And unless you know, and can guarantee to us a fixed number of days a year that we can have water power, you cannot tell what that water power is worth.

But Mr. Allen, I think, in behalf of the petitioner introduced some figure—half a million or a million dollars, I don't recall—something like that—as the value of the privilege and power rent free, and we felt that it was proper to introduce evidence tending to meet it.

Mr. Blood follows a method different from either of these witnesses. Mr. Blood arrives at his value of the steam and electric plants entirely by inspection after having ascertained the cost to reproduce this plant, or a new plant like this plant, in January, 1898. That is, he looks at the buildings, finds out what it would cost to build some like them in 1898, takes out what he believes to be the fair depreciation for the seven years that they have

existed, for wear and tear alone, and then he says his buildings, that is, the steam and electric buildings, are twice as large as this business has any use for; there is twice as much space here as can be utilized, and they are worth just about half of their depreciated cost. And he allows that sum for the value of the buildings. In the machinery of the steam plant and the electric plant, he takes their cost and allows an annual rate multiplied by age in some instances. In other instances he strikes right at the root of the matter and says for the purpose of their use these mechanisms are worth so much money. Having arrived at his value of the steam and electric plant he gets at the value of the hydraulic plant and privilege, as do the other witnesses by a comparison of operative cost; that is, it ought not to cost any more a year to operate this plant by steam and water than it does to operate by steam alone. I think we will all admit that as a fundamental proposition. After using that as an axiom, finding out what it would cost at his valuation, to run it by steam alone, finding out what it would cost to run it on the days of restrictions which he assumes, the difference can be applied to the cost of running the hydraulic plant. Now that difference can be applied entirely in the form of a cash payment for the water plant and privilege, rent free; it can all be applied in the form of rent per year, assuming that we have the water privilege and plant free; or it can be split up and part applied to annual rent and part to the plant and privilege. What he does in fact is to subtract enough to pay for measured water annually, and applies the rest to the valuation of the plant and privilege.

Mr. Main finds, and so does Manning, the value of the water privilege by a similar method.

It will be apparent that while counsel have arrived at a higher valuation of this plant by a comparison with W. H. Foster's operative expenses than did our witnesses by the method adopted by them, it is but natural, because we have assumed the Company's own figures, and given them the benefit thereof wherever there was a difference between the Company's and the City's witnesses. There is not a great deal of difference, however.

You may not decide to follow this method. You may decide

to consider operative cost merely one factor in the case. And therefore we take up the consideration of what depreciation is apparent in this plant from inspection, what is the depreciation in this plant found by opinion, and what is the resulting value from inspection and from opinion?

We wish to call your attention forcibly to the fact that a depreciation for wear and tear does not in any way represent the probable life of any part of the plant, and represents only a portion of general depreciation. That is apropos of the allowances which are made for depreciation in the buildings by Rivers, Landers, Kirkpatrick, and Ranger. Mr. Rivers is a very optimistic gentleman, and although he has the highest cost for these buildings of any witness, he only finds a total depreciation for the whole seven years of \$87.91. Mr. Landers finds \$340 worth of depreciation; Ranger, \$3,800; and Kirkpatrick, \$2,000 in round numbers. That is the depreciation for wear and tear. And inasmuch as some argument may be drawn from Kirkpatrick's probable life of the parts of the buildings, I want to make a suggestion relative thereto. You will remember that Mr. Kirkpatrick suggested that brickwork would last in itself perhaps 132 years, and plastering 60 years, and so on. He found his depreciation by assuming the life of the various materials that enter into the construction. I suggest to you that that is depreciation for wear and tear; that when one of the experts in the case, dealing with the value of the electrical plant as a whole, or of the gas plant as a whole, speaks of the life of the building, he does not mean the physical life; he means the commercial or valuable life.

The CHAIRMAN. That is the respect in which it is mortal, isn't it?

Mr. GREEN. Which? The physical life?

The CHAIRMAN. Commercial.

Mr. GREEN. Well, I don't know; we don't think it is immortal. We have discovered that there is immortality in this plant only from the evidence of the petitioner.

Mr. BROOKS. Well, we have discovered that you claim there is "amortization"; I believe that is the proper term.

Mr. GREEN. I believe that word came from one of your witnesses originally, so that you ought not to quarrel with it. If you will turn to the testimony of Dr. Robb and W. H. Foster, in their direct testimony, I will show it to you.

Mr. BROOKS. You are mistaken; it was Peter Wright.

Mr. GREEN. Well, one of your witnesses; I know it came from your side. It is a good word; it reflects credit on you. The only mistake was that while Dr. Robb and Peter Wright and Mr. Foster understood about depreciation, they did not apply the fund of knowledge which was in their heads. Of course we do not claim that a building is physically disrupted and fallen to the ground at the end of a probable life of fifty years, any more than we do that machinery has gone to pieces at the end of twenty years. What we claim is that its valuable life has departed. But inspection, we say, while it reveals only one kind of depreciation to a builder, who knows nothing about the business which is carried on in the buildings, reveals an entirely different state of facts to an electrical engineer or to a gas engineer, and that is the cause of the difference of opinion, as to amount of depreciation, of builders, from Rivers to Ranger inclusive, and of Wright, Foster, Warner, Stone and Blood, and others who are electrical engineers.

We have taken up from this point on with some care the question of depreciation as revealed by inspection and as fixed by use and age in the buildings and in the mechanisms of this plant.

The CHAIRMAN. Where is that?

Mr. GREEN. Beginning with page 429 of our brief, as far as the buildings of the steam and electric plant are concerned, we ask you to adopt the reasoning of Stone and Blood on certain specified grounds. Stone and Blood say that the buildings of this plant—I am speaking now of the steam and electric plant—are worth some \$22,100, no matter what they cost. That is what it amounts to. They find the value from their reproductive cost, less depreciation for wear and tear. They find a depreciation for wear and tear alone for the purposes of comparison and at the request of counsel, and we have tabulated their contract cost and their depreciation for wear and tear and their final result side by side.

Now their figures find support in evidence already in this case from witnesses on both sides. Their strongest corroboration, because it comes from the petitioner, is found in estimates prepared by Mr. Tower as to the proper cost of a new steam plant in Holyoke, which he introduced in Vol. VI. Mr. Tower says



that the buildings of a new steam plant designed to produce 1,040 horse power by steam should cost \$13,520. Now if you will omit the dynamo building from the computations of Stone and Blood you will find that they value the present stack, engine room and boiler-house at \$11,440, which is but little less than the \$13,520 suggested by Mr. Tower as the proper cost of such buildings. And Mr. Tower goes further and says that if the buildings were to be erected for a steam plant with engines compounded and run condensing, they ought to cost only \$11,440.

You will bear in mind that Tower is estimating a brand new plant, and we are dealing with a plant seven years of age.

The valuation given by Blood is supported by all of the witnesses called in behalf of the city; by Warner, by Bell, as to the proper cost of a new steam-driven plant, or of the buildings, I should say, of a new steam-driven plant—the figures running from \$22,000 to \$21,000, in accordance with the elaborateness of their design.

For depreciation for age and use alone Blood's figure is the highest, a little over 3 per cent. An average of all the witnesses called in behalf of the city shows an annual depreciation of about 2 per cent. for age and use in these buildings. We ask you, then, to allow a depreciation for all causes on these buildings, amounting to the difference, whatever it may be, between the contract cost, which you shall find, and \$22,100. If you have occasion to estimate depreciation for age and use alone, we think 2 per cent. a year is fair.

The depreciation of the engines and boilers does not differ a great deal, so far as our witnesses are concerned. The figures of Main, Warner and Blood are fairly comparable, Main and Blood being very close. Neither is there any great difference in any of the witnesses as to the contract cost of these.

The Company allows very little depreciation for these engines and boilers in getting at the actual value, but Mr. Allen made some figures that we consider illuminating, both in his direct testimony and in his rebuttal. We wish to call your attention to them. You will notice from our brief that we claim a depreciation of from 5 to 6 per cent a year on the boilers and engines. Mr. Allen, in figuring out what it cost to run this plant by steam alone, back in Vol. V in his direct testimony, says

that there should be allowed an annual depreciation of \$1,224, which is 5.3 per cent of his own estimated cost of the engines and boilers. He says that with the utmost distinctness. Later on, when Mr. Allen, in rebuttal, is figuring up the cost of operating this plant on an average load of 200 horse power a year, he reckons the depreciation on this plant at \$3,500 odd a year, or 7 per cent, as I recall it, on machinery, buildings and everything else—repairs and depreciation. Now that \$1,224 item covered repairs and depreciation, for if you will examine his detailed schedule of the operating cost you will find that he allows for no repairs except as they appear in that \$1,224 item.

His direct testimony, we say, fully substantiates our position as to the proper depreciation to be allowed on these mechanisms. His depreciation as allowed in rebuttal is to be termed curious and interesting. It is quite a reversal of all that he has said before, and the reasons for it have been fully explained. Mr. Whitham, in allowing for depreciation—

Mr. BROOKS. Could I just ask one thing, for explanation?

Mr. GREEN. Yes, sir.

Mr. BROOKS. That depreciation he gives is where the plant is run entirely by steam, is it, that you claim?

Mr. GREEN. Yes, and not only that—I am glad you suggested it, Mr. Brooks—it is running in his first estimate more than an average load of 200 horse power.

Mr. BROOKS. That is what I thought.

Mr. GREEN. When it is running an average load of 200 horse-power he gets a depreciation of 7 per cent on buildings, machinery and everything else, but when it is running on an average load of 231 horse-power, the figure assumed in direct testimony, he gets a depreciation of 5 per cent on the machinery and no depreciation upon the buildings.

Mr. Whitham is involved at this point in the same inconsistency. Mr. Whitham allows some \$3,500 for depreciation and repairs when running this plant on an average load of 200 horse power—that is his rebuttal evidence—and he adopts 7 per cent, just the same figure as adopted by Mr. Allen, and he assumes a life of 20 years, or not over 25 years at least, of this plant; and yet he deliberately states in direct testimony that the average life of this plant is from 40 to 50 years. And there is

another curious thing. Mr. Allen says in his direct testimony that he does not use the annuity table. Mr. Whitham says that he does use the annuity table. Yet both of these gentlemen, figuring together in rebuttal, adopt 7 per cent as the repair and depreciation item when running this plant on an average 200 horse power load. Either Mr. Whitham has become converted to Mr. Allen's theories, or Mr. Allen has become converted to Mr. Whitham's, for they both adopted the same result.

The CHAIRMAN. Perhaps the table was right.

Mr. GREEN. Perhaps so; but the depreciation must be allowed on one theory or the other, and they both have adopted the same figure. We have asked you, then, considering the figures of the other side as well as our own, to allow Main's depreciation upon the contract cost, or  $3\frac{1}{2}$  per cent per annum, applying the rate to the contract cost which we have asked you to find if our reasoning is sound.

The CHAIRMAN. How much, if you remember, did they run the engines and boilers? Practically, I mean.

Mr. GREEN. They claim they ran the engines and boilers five or six days a year. I mean for purposes of power. They ran one of the boilers for heating, I believe, right along, whenever it was necessary to heat the plant.

The CHAIRMAN. One boiler did the heating in winter?

Mr. GREEN. Yes; one boiler attended to the heating, one spare boiler, and three boilers ran the power plant whenever it was necessary, as I recall the evidence—whenever it was necessary to run it at all.

For the purpose of studying the electrical machinery at the station, and as a matter of convenience, we took the cost of the machinery as given by Dr. Robb, and compared it with the cost as given by Stone and Blood. The items were so arranged in both schedules that we found it easy to make this comparison. There is not a great deal of difference in the original cost of the electrical machinery as given by these two. There is a difference of about \$3,000.

Now Mr. Robb allowed no depreciation upon the plant, except that he offset the profits during the period of installation against the depreciation. I have already called your attention to the fact that Dr. Robb charged up the dynamos at new cost. that

is, the same cost as though they were new, \$20 per light ; and if a person wanted to buy them new he could not ; that if a person wanted them he would have to go into the market for second-hand machinery.

If we were to figure these dynamos at what it would actually cost to purchase them today, we should, out of hand, and at the very beginning suppose the values on this branch of the case as given by our witnesses. But we have depreciated this machinery, or have furnished figures of depreciation for this machinery in two forms. We have given you estimates of depreciation for age and use alone, and figures for depreciation which represent the difference between the contract cost and the actual value.

Now the depreciation for age and use alone on this machinery, as given by Stone and Blood, is 44 per cent. total, or 6.3 per cent. a year on the contract cost.

The CHAIRMAN. What does that amount to?

Mr. GREEN. It amounts to something over \$11,000 on the contract cost, as found by them. They say—Stone and Blood say, and we ask you to approve their judgment—that the value of this machinery is but \$4,280, and their results are supported by the figures of Bell and Ridlon.

Warner's depreciation amounts to a trifle more, some 6.6 per cent. a year of the contract cost, and is necessary that we should caution you on this point. Warner has, for some reason, divided his total depreciation by 6, in order to get at an annual rate, on the supposition that the life of the plant is six years. It is seven years, so assumed by all of the other witnesses, both for the petitioner and the City. His total depreciation is some \$13,000.

Looking through the evidence, you will find that the Company in various instances has fixed an annual rate for depreciation on electrical machinery. We have tried to collect all these instances. We find that Dr. Robb, at one time in estimating the cost of operating some portion of his plant in Hartford, put in a charge for depreciation, and you will note when you come to look up our citation that he is operating a new plant, with new mechanisms ; and yet, he charges 5 per cent a year for depreciation.

You remember the contract which the Company made with

the street railway company. They put in, for the purpose of manufacturing power for the street railway company, certain dynamos, and it was provided in the contract that at the termination thereof the street railway company should take over those dynamos at an annual depreciation of 5 per cent.

Both Mr. Wright and H. A. Foster estimate the probable life of this electrical machinery at 20 years, and we say that is the same thing as 5 per cent. per annum depreciation. Now, supposing we should take an annual rate of 5 per cent. a year, which is too small, we submit; but supposing we took an annual rate of 5 per cent. a year, and applied it to the figures given by H. A. Foster. He has given us the probable life of the machinery. He has given us all the details necessary to make the computation. Well, that is the task that we set ourselves to do. You will find the result of our work on page 436 of our brief. We took H. A. Foster's contract cost; and we took H. A. Foster's probable life, and we took the actual age of the parts. The result is that a depreciation of nearly \$11,000 on that basis should be found; that is upon a contract cost of a little over \$25,000, there is a depreciation of nearly \$11,000. And we have in our process differed from H. A. Foster only in one particular. He used an annuity table. We say that an annuity table for this purpose is an absurdity, and we use a straight percentage. Otherwise, we have followed exactly the method which he has adopted. I think we do differ here in one more particular. Where it has been possible to get at the exact cost of some of the mechanism—a very little of it—we have used that, rather than his estimate. That is, it is in evidence that three Schuyler dynamos cost \$7 a light. We have used that figure. We have also the original cost of a few of the armatures. Otherwise we have followed the exact cost as given by H. A. Foster. Now the above result assumes a normal, average life of the electrical machinery. We say that the depreciation of this plant is more than normal, and that consideration argued by us, explains the difference between this result and Stone and Blood's final value, which we ask you to adopt.

Considering, then, this result obtained from H. A. Foster's work, we ask you to find that the depreciation for age and use upon the electrical machinery is 6.3 per cent. of the contract cost. The total depreciation, we shall claim, would be the difference

between \$4,280, Stone's valuation, and any contract cost that you might find.

In the same way, we set ourselves to studying the depreciation of the distribution system, taking Mr. H. A. Foster's estimates and Warner's and placing them side by side, taking the contract cost in each instance, depreciation in each instance, as given by these witnesses. We have only corrected them in one or two minor particulars. We changed Warner's estimate of six years as the age of the plant to seven years of age, which reduces the annual rate of depreciation, but produces a result comparable with the results of the other witnesses, and we have, in this case, charged up a few of the electrical appliances bought second-hand, at the going prices for them. The difference in the depreciation is the difference between \$11,000 allowed by Foster, and sixteen thousand odd dollars allowed by Warner.

Then we directed our attention to Stone and Blood's present value of the distribution system as given by them, amounting to \$16,470. Their total depreciation, that is, Stone and Blood's total depreciation, amounts to just about 60 per cent of the contract cost, and we ask you to find that as the total depreciation for all causes, of this distribution system.

Now let us look outside of these estimates and see what evidence there is on either side, corroborative of these results, one way or the other.

Now Foster says that the average life of this system is 20 years.

If he hadn't used annuity tables, and used straight percentages, his total depreciation, otherwise adopting his own method, would have been fourteen thousand odd dollars. That figure closely checks our results for depreciation for age and use, and we therefore ask you to find a total depreciation of 60 per cent, or an annual depreciation of not less than 6 per cent. for age and use alone. We believe that our results are justified by the facts of the case and by Mr. Foster's statement of the probable life of the parts.

In regard to the water plant, we have, first of all, directed your attention in our brief to the depreciation for age and use only of this plant, as estimated by Main, Warner and Blood. They are very close in their estimates, running from a little over \$7,600 down to about \$6,800 for the seven years that the plant had existed.

We then found, upon examination of the evidence, that Mr. Newcomb had given in one of his tables the probable life of all the various parts of this water plant. We then took Mr. Newcomb's contract cost. We took his probable life, and using straight percentages—which of course he didn't use—he used an annuity table—but using straight percentages, found an annual depreciation of \$1,100, or a total depreciation of \$7,700, on his theory, modified only by changing the annuity rate into straight percentage.

If we take Newcomb's estimate of the probable life, and Main's contract cost, there is a total depreciation, as we have figured it out for you, of \$7,111. If Mr. Whitham's annual annuity table were changed into straight percentages, his total depreciation would amount to nearly \$12,000.

Mr. Wright gives the probable life of the plant throughout to be fifty years. On straight percentages that is 2 per cent. a year. And if that is applied to Main's contract cost, there is a depreciation of nearly \$8,400.

Going back to H. A. Foster's figures, and following his method, except that we substitute for his annuity table straight percentages, we obtain the result of a total depreciation of \$2,985 upon the wheel-house machinery. Mr. Foster gives no probable life, I believe, of the buildings, but if we take a probable life of a hundred years, a life assumed by some of the Company's witnesses, and follow his method—only changing the annuity table into straight percentages—we obtain a depreciation of \$4,312, a total depreciation of \$7,357. So that, taking all these factors into consideration,—not one of them, but all of them,—considering them all side by side, we ask you to find that Main's estimated depreciation of 1.8 per cent a year is a fair one, representing depreciation for age and use alone at this plant, and this per cent computed on the contract cost of sixty-two thousand odd dollars, as we have previously argued to you, would amount to \$7,800, leaving a present value of \$54,244.

And at this point let me call your attention strongly to the consideration that the value of the hydraulic plant, taken by itself, is one question; but as we shall attempt to show you conclusively, the value of the hydraulic plant when united with the rest of the plant is another question. And we think we can

show you why, and conclusively why. At this point I call your attention to the estimated value of the hydraulic plant of fifty-four thousand odd dollars. We claim that you cannot add that figure to the value of the steam and electrical plants otherwise obtained, and then say that the resultant represents the value of the whole thing, unless you are ready in this instance to throw the water privilege out of consideration altogether. In other words, when you come to hitch them up, there is something—and we believe we have detected it and can point it out—which detracts from their value when put together.

That brings us directly to the question of tunnels and shafting. That is the most important consideration, in many respects, in this case. What did the Company do here, and what is the result of its action? It wanted, for some reason, to separate these buildings,—for the convenience of their back land, apparently,—so they built the hydraulic plant away from the dynamo building. That necessitated a tunnel. That tunnel service is useless as far as this plant is concerned. Its usefulness is for something else. It enables the Company to maintain a right of way to their back land. Now, there isn't any reason why we should pay for that tunnel. It adds nothing to the value of the plant. That tunnel cost,—I don't recall what,—fifteen or sixteen hundred dollars, according to the various witnesses, and we ask you to eliminate that cost at once from any valuation in this case.

Now, that isn't sufficient, for this reason. Having the tunnel there, or in other words, having the water plant separated from the dynamo building, it is necessary to have an inordinate amount of shafting and belting. And that shafting and belting uses up power. It wastes power.

Our friends here say to us, "We want you to pay for this construction, necessitated by our own convenience. We want you to pay us \$1,500 a year per mill power for the mill powers that you obtain to run your steam plant." Now, it takes pretty nearly a mill power to run the shafting and belting of this plant. There is oceans of evidence on that point in this case. Mr. Samuel B. Winchester, in the very beginning, testified that there were 17 horse powers lost when operating the power plant in the daytime; and that was when they were running one shaft. When



they are running four of them, we have approximately four times that 17 horse power, or 68 horse power.

The CHAIRMAN. How much did you say, Mr. Green.

Mr. GREEN. Sixty-eight horse power, four times seventeen. Dr. Bell says that seven-eighths of that loss is to be attributable to this separation of the hydraulic plant from the dynamo building, the vertical wheels and especially the appurtenances which necessarily follow this arrangement. They want us, then, to take a plant which necessitates, owing to its poor construction, a loss of nearly a mill power in its shafting, and yet they want us to pay \$1,500 a year for that mill power.

If we must pay for power to run this unnecessary and extravagant shafting and belting, we want you to reduce the price of the plant enough so that we won't lose money. We ought not to pay them \$1,500 a year for power to turn shafting and belting which exists by reason of the Company's desire to save a passageway to its back land.

Now, this evidence doesn't rest upon the statement of Dr. Bell, nor yet upon the statement of Mr. Winchester. Mr. Main says that the friction loss from the wheels is about thirty per cent. On an average load of 183 horse power there would be a friction loss of some 55 horse power.

There were certain tests—I only allude to them in passing—which were not completed, and admittedly by both sides do not demonstrate the exact result as we expected they would. They do demonstrate conclusively, however, that there is a large loss of power in the shafting and belting. But the tests not having been completed, neither Mr. Whitham, Mr. Allen, Mr. Main nor Dr. Bell can draw final conclusions from them.

Now let us take the smallest estimate which is given for loss of power in that shafting. The smallest estimate, so far as I can recall, for loss of power in the shafting and belting is some 50 horse power. Now if seven-eighths of that loss is attributable to this faulty construction, then some 44 horse power must be charged up to that item. In other words, then, at an annual rate of \$1,500 per mill power for measured water, we would pay the Water Power Company \$1,000 a year just to run that portion of the shafting and belting made necessary by the Company's desire to preserve a passageway, all of which would have been avoided if it had, as one would expect it to do and as it

would have done under normal circumstances, put its wheel house beside the dynamo building, where it belongs.

Well, \$1,000 a year is interest at five per cent. on \$20,000. Now if you add to that sum one-half of the cost of the shafting and belting made necessary by this separation, the allowance for this defect in construction which we ask you to make runs from \$29,418 on the basis of our figures to \$31,601 on the basis of Mr. Prichard's figures.

You will find as we proceed that a result of about \$30,000 as a deduction to be made for this faulty arrangement of the plant just about explains the difference in a great many estimates and comparative tables. We shall call your attention to it from time to time as we proceed. We believe our reasoning here, gentlemen, is correct, and we trust that you will give this matter the same careful attention that we know you will other aspects of the case.

Now if you find the value of this plant from operative cost you find it at once and it is not necessary to consider anything further. If, however, you begin with the cost of a new plant of the same design as this plant, we wish you to bear in mind a few facts.

Consider first what would have happened if H. A. Foster had logically applied his method of depreciation to the machinery and distribution system of this plant. We have figured it out for you on page 444 of our brief; there would have been a depreciation of nearly \$59,000. In the same way we have applied Wright and Foster's "life" to the contract cost, which we have asked the Commission to find, and we ask you to study that result. I will not go into these figures in detail, as it will be necessary for you to examine them, I think, carefully, in order to understand our reasoning.

We call your attention to the result to be obtained if an annual rate for depreciation of 5 per cent. throughout was applied to the contract cost. That 5 per cent., you will remember, is the amount that this law compels us to apply for this item from year to year.

If you take now the depreciation rates for use and age which we have asked you in the foregoing pages to find, you will arrive at a result which is set out on page 445 of this brief.

The CHAIRMAN. That amounts to \$196,114?

Mr. GREEN. Yes, sir.

The CHAIRMAN. Deducting depreciation for age and use, \$50,754, you get \$145,360?

Mr. GREEN. Yes, sir. This last figure does not take into account at all the question of the tunnels and of the shafting, and cannot.

Then we have collected together the results of our reasoning relative to the contract cost, the full depreciation which we have asked to be allowed from time to time, and we have tabulated that on page 446 of our brief, and you thereby arrive at a present value of \$117,477. That does take into account the question of the shafting in the tunnels, because the full depreciation is based upon a consideration of all the facts in the case, while the other calculation considers only depreciation for age and use.

The difference between \$117,000 and \$145,000 is approximately the \$30,000 which we have otherwise found in our reasoning as the deduction to be made for the tunnel shafting and belting, and supports our contention that that item should be allowed as an independent item and in the form of a deduction when you are making up your final results.

I have nothing to say in regard to the special additional value of the plant as a going concern. We expect you to treat these figures—that is, the figure of \$117,477—if you deal with that figure—just as you dealt with the corresponding figure found in the gas case.

We ask you, then, to consider all the various results which we have brought to your attention. Consider the figures given by Stone and Blood as to the present value, the figures given by Warner, given by Bell. Then consider for a moment the result that you would reach if you took Main's value of the steam and water plant, which includes the land and the privilege, and added to it Blood's present value of the electric plant.

The CHAIRMAN. Mr. Green, I don't understand that.

Mr. GREEN. Excuse me, sir; I am glad you spoke.

The CHAIRMAN. Take your division H; you start off by saying that you think the value of the property as a going concern is \$135,000 to \$140,000.

Mr. GREEN. Yes, sir.

The CHAIRMAN. Now won't you please examine this result—the different conclusions you have arrived at?

Mr. GREEN. Yes, sir.

The CHAIRMAN. How do you justify that? First you say Stone and Blood give so much, etc., etc.

Mr. GREEN. Yes, sir. Let me explain in regard to this. We are of the opinion that in the case of this electric plant, taking the whole thing together, you will probably not be able to arrive at a final conclusion from any one set of figures. We arrive at the figure that we ask you to adopt by a consideration of all the results, not of any one result; taking into consideration all the conclusions and not any one conclusion. We call your attention to Stone and Blood's value as given by them. And this is what I ought first of all to have called your Honor's attention to. Stone and Blood assumed a certain number of restricted days which entered into their valuation. I will explain that in a moment.

The CHAIRMAN. I think you had better take a recess of about two minutes. I don't want to sit here and not understand it. It is not your fault at all.

Mr. GREEN. May I ask this: Have I made myself clear up to this point?

The CHAIRMAN. Yes. You may have made yourself clear, but I am a little bit mixed. It seems to me, Mr. Green, that your brief tells the story. It is peculiarly a matter of figures; it is clear on the brief.

Mr. GREEN. I will look it over for a minute.

Mr. BROOKS. Does your Honor say that it is clear on page 447?

The CHAIRMAN. I won't swear that I understand it. I think I have understood it up to this time, and my trouble is probably because it is made concise and takes some time to study over. I think I understand it, Mr. Green, but I am only saying that you have reached now a point in this thing where there are so many theories that it is going to be difficult to follow them all except by considerable study. The only question is whether it is worth arguing that point or leaving it as it is in your brief. I want to save you the trouble if I can.

Mr. GREEN. I think, Mr. Chairman, I can perhaps make

that clear in a few sentences; I hope so. We have worked out some eight or nine conclusions on different theories, all of them being theories which have been accepted in this case on one side or the other—values reached by a study of operative cost, values reached by the use of depreciation for age and use only. Now we say that considering all these eight or nine results, which do not very materially differ one from another, that this plant is worth on the basis of the Company's offer somewhere from \$135,000 to \$140,000, and if a fixed number of restricted days can be assumed, say 22, it may be worth a little more—say \$145,000.

Mr. BROOKS. I think, Mr. Green, perhaps you have made a mistake. You say "on the basis of the Company's offer." Your brief does not say so. It says, "on the basis of measured water." I thought I would suggest it to you because one of the two was a mistake.

Mr. GREEN. Excuse me, you are right; I should have amplified it. On the basis of the Company's offer and assuming measured water. All our other results show a loss in the operation of this plant. We do not ask you to find that result or either one of those results from any one figure necessarily, but we say that we believe it to be a fair conclusion from all the results when they are balanced side by side. Does that make it clear?

The CHAIRMAN. Oh, yes, I understand it. I think by a study of the brief I can readily understand the details.

Mr. GREEN. You see we had studied this proposition originally from operative cost. Our friends had dealt with the question entirely from reproductive cost. Now we have, we believe, gone into their territory and applied what we believe to be the logic of some of their statements, and on the theory of reproductive cost have arrived at results which we say substantiate our theory.

I do want to call your attention to one thing in addition; I don't think it is necessary to refer to your copy of the brief. It has occurred to me that our friends may do this: They may take Main's estimate of the value of the steam and hydraulic plant, and some other witness's estimate of the value of the dynamo building and machinery, and add them together and say that that represents the value of the whole thing. We say

that you have got to take about \$30,000 out of any such result as that, because Mr. Main does not operate the whole plant; he studies the cost of operating the power plants by themselves. Warner, Bell, Blood and Stone operate the plant as a unit, but Mr. Main necessarily operates simply the power plants, and when you compare the cost of operating these power plants with the cost of operating a new steam plant, the problem of the tunnel and the shafting does not enter into the consideration in any way whatever. And you will find this argument fully set out on page 447 of our brief.

There is some other evidence corroborative of our results, some strong evidence. The Company has made sworn returns to the Gas Commissioners as to the value of this plant. Now I appreciate the fact that they may say that the value that they placed upon their gas plant was an arbitrary value—\$100,000. It was an old thing and they couldn't find out what it was worth anyhow, and they called it \$100,000. But this electric plant is but seven years old, and this Company has sworn through its officers that the plant is worth \$141,197. Is not that worth consideration in this case? Is not the deliberate opinion of this corporation expressed through its duly authorized officers as to the value of the very property that you are dealing with to be considered? I know my friend may argue that the Company—I don't know what he will argue; I won't anticipate. But I say they knew something about their own plant, and we have a right to assume that they expressed their opinion freely and fairly and intelligently when they put themselves on record in regard to the value of this plant. They built it; it stood on their books; they knew every last dollar it had cost them. And when they say that it is worth \$141,197, it is the strongest kind of corroboration of the results which we work out on the various hypotheses assumed in this case.

Mr. COTTER. When was that return made?

Mr. GREEN. That is the return that was made in June, 1897, just before the City of Holyoke voted to go into the lighting business, and it just precedes the time that they were overwhelmed with a desire to dump this mass of undesirable property into our lap. We are a good deal in earnest about this, gentlemen. Well, we have the books of the Company in

this case and the Company has kept track of this plant on their books. They have started with an account showing just what it has cost, they have charged off depreciation from time to time, and we have figured out for you with a great deal of detail on page 450 through page 452 of our brief just how their books stand.

The CHAIRMAN. That is their books?

Mr. GREEN. These are their books. And the value of this plant in January, 1898, according to the books of the Company, was \$141,197, exactly the amount which they have returned to the Gas Commissioners.

I will not follow through all the details of this bookkeeping. It is correct—at least, if it is not correct, your attention will be directed to any of its errors. You will find that according to their books the water plant cost them a little under \$62,000. You will find that according to their books the electric and steam plant cost \$184,000—rather more than that.

The CHAIRMAN. You say on page 452: "The result of the whole thing is that the actual first cost of the electric light flume was \$61,981.37."

Mr. GREEN. They call it the electric light flume; it is obviously the water plant account. We used the term there which they used on their books, but it is obviously the water plant item.

Now there is just one consideration. It may be argued that inasmuch as this plant cost originally some \$246,000, whatever the figure is, our estimate of contract cost of \$198,000 or \$200,000—I forget just our figure; \$200,000 in round numbers—is too low. The company, you understand, never employed any electrical engineer. The foreman of their woodworking department looked after their construction, and Mr. Winchester attended to the engineering. We say that the difference in the price of materials between the year 1890-1 and the period 1897-8 fully covers the difference between those figures and justifies absolutely our contract cost. So far as brick is concerned, it is in evidence from Mr. Landers that brick was \$1 per thousand higher in 1890-1 than in 1898. He gives the reason why. We say it is a matter substantially of common knowledge that ironwork was very much higher—very much higher—in 1890-1. You can see by a comparison of some of the schedules to which we have called your attention here that electrical ma-

chinery was very much higher. My impression is that ironwork was nearly twice as expensive in 1890-1 as it was in 1897-8.

Mr. BROOKS. Where is the evidence for that stated in your brief?

Mr. GREEN. The evidence in regard to the electrical machinery as such, we call attention to on page 452 of our brief.

Mr. BROOKS. I was asking about the iron.

Mr. GREEN. I have gone outside the record. I say that it is a matter of common knowledge to any one experienced in building, and I assume that the Commission, if they are familiar with the prices of iron at the different periods in question as a matter of knowledge, have a right to apply their knowledge to this subject.

Inasmuch as it may be necessary for the Commission to divide the hydraulic and steam and electric plant, we have suggested on pages 452 and 453 of our brief a method of division, tabulating our results on page 454. I think it is not necessary to go into the figures at all; it is simply our previous results, subdivided. And we say that, assuming we can get water measured at the surplus rates in Holyoke, that the hydraulic plant and privilege are worth somewhere from \$60,000 to \$65,000, and the electric light and steam plant from \$75,000 to \$80,000. I will pass—

The CHAIRMAN. That doesn't include steam, does it?

Mr. GREEN. Oh, yes, sir. Steam and electric plant in one division and the hydraulic plant in another.

The CHAIRMAN. That is on that \$135,000—

Mr. GREEN. That is \$135,000. It lies in between \$135,000 and \$145,000. We don't fix exactly a figure. It is a matter of opinion, to some extent.

Under all the facts in the case, we say \$60,000 to \$65,000 for one plant, and \$75,000 to \$80,000 for the other. This result is fully corroborated, we believe, by their own opinion, as expressed in their sworn returns, and on their books.

I will not argue to you the evidence relative to the company's earnings and the value of its plant, franchises, business and good will. We will submit that on the brief. Neither will I go into the question of the opportunity for increasing the business of the company. We have collected carefully all the evidence which has been presented on that subject in this case;



we have collected for your inspection from the Gas Commissioners' reports the annual receipts of this company, beginning with the year 1893, and we ask you to consider all the evidence which we here present; take into consideration the fact that the Holyoke Street Railway Company could do better, apparently, by going down to the river bank and running their own plant, which has some bearing on the evidence as presented by our friends in this case. Take into consideration the fact that this company that wants to sell us water power has vacant space in the city of Holyoke, vacant floor space, fitted up with shafting, ready to sell water power in small lots, and that we should have to enter into competition with them, and that their space is vacant and awaiting customers. They have their huge Cabot Street mill, and only one tenant in it, as far as this evidence goes.

Mr. BROOKS. I should like to know from what evidence you say that.

Mr. GREEN. It is the evidence, Mr. Brooks, of Mr. Sickman, and I will endeavor to find the citation and give it to you.

The CHAIRMAN. You have given it already, I think.

Mr. GREEN. I think I have given it. If I have not I will find it and give it. And now, just a word as to the depreciation of the plant and additions to it since January—

Mr. COTTER. I want to be satisfied I understand your position up to the present time. I understand that your valuation is, the one you want us to adopt, is \$200,000, thereabouts, for the gas plant?

Mr. GREEN. Yes, sir.

Mr. COTTER. And for the electric light, steam and water plant, \$136,375?

Mr. GREEN. If you take our exact figures those are our figures, and were from \$135,000 to \$140,000 on the basis of the company's offer.

Well, there has been very little addition to this plant since January, 1898, and you will find by reference to the evidence that all that has been made has been paid for by the consumers. You will find by following the evidence in the case, that very little has been paid for repairs by this company at this plant. And in connection with all the evidence which we cite, we ask you to find what we urge upon you is the fact, that the company

has allowed this plant to run down; that they have repaired it only to the extent of keeping it in operation pending the time that we have to take it; they have not tried to keep the condition of the plant in good, permanent working order.

I want to call your attention particularly to a few figures on page 461 of our brief. The company may claim that the expenditure for repairs at his plant is necessarily and properly less than at other electric plants throughout the State, because this plant is run by water power, and that the expenditure for repairs for a plant run by water power would be necessarily less than those to a steam-driven plant. So we studied the problem of the repairs of the distribution system. That is the same for any kind of a plant, and we find from the returns made by this company to the Gas Commissioners that this company was paying for repairs about 2 per cent of the gross income in 1897-8, a half of one per cent in 1899 and  $1\frac{1}{2}$  per cent in 1899-1900 upon its distribution system, while the average of all the electric light companies in the State show an average expenditure of about 6 per cent in 1897-8 and 7 per cent in the two subsequent years. This seems to us to prove conclusively that our contention is right in this matter.

The CHAIRMAN. If somebody's suggestion is correct, repairs are not paid for annually, but as they accumulate, in the course of two or three years.

Mr. GREEN. I thought it was depreciation and not repairs.

The CHAIRMAN. It may be.

Mr. GREEN. I understand repairs are paid for each year, but the depreciation account is sometimes allowed to run two or three or four years. Repairs are carried along each year and charged each year, and returned to the Gas Commissioners each year.

I think there is nothing further in regard to the depreciation account that I need call your attention to. We say that this plant has been allowed to depreciate abnormally, and that you ought to take account of that somewhat in your award. Dr. Bell was the only one who testified definitely on the point. He says it is his opinion the depreciation under present conditions is 8 to 10 per cent a year on its value in 1897 or 1898.

The CHAIRMAN. Mr. Green, if I may interrupt you for a moment, I want to make a suggestion. We wish to adopt the

rule that is usually adopted in cases of this kind, or that is usually employed when Commissioners have to see the property. In this case, if the Commissioners wish to see the property, and other property, perhaps, in Holyoke, it is much more convenient for the Commissioners to look this property over by themselves, not accompanied by counsel or anybody else—not while they are engaged in making up their minds as to the amount to be allowed. That is, if that is agreed to, of course, by the parties. Of course if it isn't, we can't do it.

Mr. BROOKS. As far as we are concerned we shall be very glad to have you do so.

Mr. MATTHEWS. We have no objection. We agree to that.

The CHAIRMAN. Before you get through, some time, just give us a written statement of what you would like to have us examine. For instance, there is some real estate, land, buildings, and some things in Holyoke. Just give us a list of what you would like to have us look at when we go up there. For instance, you brought up some similar land, on the question of value. We want to look into those things, so if you will give us a list, or a little plan, showing us where to go, and so on.

Mr. GREEN. We shall be very glad to do so.

The CHAIRMAN. I didn't wish to interrupt your discussion. It has been very interesting. I only wished to call your attention to anything relating to that particular point, because the theories come packing in so closely that it is difficult for me to pick them out accurately and precisely.

Mr. GREEN. I am very glad your Honor did. I should consider it unkindness, in arguing a matter which we have prepared with so much care, if upon failure to understand anything you didn't call my attention to it. I was anxious to get through this afternoon, and for that reason I was hurrying a bit at that point.

The CHAIRMAN. We will adjourn now. Continue in the morning, Mr. Green.

(Adjourned to Tuesday, December 31, at 10 A. M.)

## NINETY-SECOND HEARING.

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BOSTON, Tuesday, Dec. 31, 1901.

The Commissioners met at the Court House at 10 A. M.

The CHAIRMAN. Now, Mr. Green, in the words of Henry the Fifth, "Once more into the breach, dear friend."

Mr. GREEN. There was one thought that I intended to suggest in regard to the Company's returns to the Gas Commission. I forgot it yesterday. You recall that they returned the value of this electric property at one hundred and forty one thousand odd dollars. It is generally the object of companies in making these returns to put both the value of the property and their operating expenses as high as they are, because if application is made at any time for the reduction of prices, such return operates in their favor. Or if at any time it becomes necessary to issue stock, either in full as against their assets or to increase such stock as they have, it is for their advantage to have their property stand as high as it properly can. So that these entries, or rather, these returns, we claim, are indicative of the full value of the property in their own opinion.

I will ask you now to consider with us for a time the question of the Company's water power. Or rather, to speak more exactly, the contracts for water power which the Company offers in this and other cases. That is, the Company has not, as we understand it, said to this Commission, "Gentlemen, here is a plant, and there is a hydraulic development. This plant has been run by water. You find out just what the nature of this power is that has been used at this plant." They have rather said to you, "Here is a contract. Value that. We offer water on certain conditions, and with certain limitations. Value that." That is the distinction, we understand.

In the case, as we understand it, of the gas plant and the electric plant, they say to you, "Here is this property. You determine what the City should have, what should pass, and the terms and conditions of the sale." In the water power case, "Here is a contract. Tell us what it is worth. Only, you cannot change the price." You may determine, I presume it may be argued, upon its suitability "upon the terms that we offer it." That is all.

The Company offered in the first place, to let us have water power whenever their hydraulic engineer thought we ought to have it; or, rather, whenever their hydraulic engineer thought there was sufficient to supply us with water in excess of the four quantities, with which you are by this time undoubtedly familiar. One of the four quantities, however, deserves a little special attention; and that is the last. They want to reserve 50 per cent. in excess of the first three quantities, which are, 1st, the amount necessary to supply prior lessees; 2d, the amount reserved for their own use; and 3d, the amount necessary to balance the canals. Now, they want 50 per cent. on top of each of those three quantities.

In their second offer, their amended offer, they have said to us, that they will put in their contract, and have offered in their contract, water for the purpose of supplying us for condensing and feed purposes whenever there is any water in the canal.

They have offered to let us have water on Sundays, so far as they can, during the half days when at present the plant is run. Of course, that offer would not help us in the future when it becomes necessary to run all day Sunday, and is not intended to; but for the present, with a certain reservation of which I will hereafter speak, they offer to let us have water during the mornings and evenings.

They say that whenever there is a lack of water in the canals a shortage of water, so far as they can, they will balance their canals through our wheels, and thereby let us run when it is claimed that ordinary users of so-called non-permanent would be restricted. And as it was explained to us by that very pleasant gentleman who usually presides over the petitioner's destinies, it appeared at first that there might be something in that offer, that there was something tangible

or definite in it, and perhaps at the first glance you did not see the string that is hitched to that offer, which makes it entirely uncertain and deprives it of any positive value.

In each instance they accompany their offer with the condition or the reservation that they will do it if they have the right to do it. What did they put that in for? If they have the right to do it. They have not explained it to us. Mr. Gross did not undertake, in his many hours of explanation, to tell this Commission what they meant by that saving clause; and yet they would balance their canals through our wheels only if they had the right to do it. They do not offer us water on Sundays and holidays only on condition that they have the right to do so, and the same with the other offers. So later on, when we came to examine the cold text, we began to wonder what it all meant, because for a contract to have any definite value you must give something outright, or something the limitations of which can be fixed.

Well, now, suppose that it would be impossible to get the full meaning of that reservation without examining all the leases ever executed by the petitioner. Of course, there is a reason for it. They have not put that clause in for nothing, and we think perhaps we can see, it may be vaguely, some reason for that condition or that reservation. You will remember, gentlemen, that we are struggling under great odds in our efforts to understand this water power problem. All the knowledge in this case is within the grasp of our friends. They know all about their canal system. They know all about their leases. They have never voluntarily offered in this case one scrap of information to this Commission or to us. We have had to go out and dig for it.

Now, in this case, if you will examine the Riverside lease of 1897, the proposals which are contained in Vol. VI, page 313, we think that perhaps you can see the reason for that reservation. Take, for instance, the offer to let us have water on Sundays. The permanent lessees have a right, it is quite probable, to have the condition of affairs continue that existed at the time their leases were executed. Now, these lessees may say that if on Sundays you run water through the wheels of this electric light station, you will draw down the pond, and you ought not to do that, you interfere with our

vested rights. They would not make that argument on days when there was plenty of water flowing in the river, but supposing that we have a dry time, when there is a long series of days that the companies are restricted, and their only chance of running on Monday is by ponding the river on Sunday.

Now letting us have water on Sunday may interfere with their rights, and it may be that they could make trouble with the Company for so doing. That is one suggestion. And the same line of reasoning may apply to the other offers. In other words, the Company probably has done in the past many things that it has not a strict legal right to do, and nobody has made any fuss about it. But as these non-permanent leases pile on, and they can give just as many of them as they can find people gullible enough to take, the prior holders of power may assert their rights, and, asserting their rights, it is quite likely that they can prevent the delivery to us of water in the particulars specified in the amended offer. At any rate, the Company has some reason, knowing its own leases, knowing its own power, knowing its own rights, for putting in a clause which makes the whole offer legally inoperative against them, in case they do not wish to fulfill it.

Why, just notice one other thing there. They say to us, we want to reserve 50 per cent. of the water necessary to balance our canals. What do they want to reserve that for? How much is it? Who knows how much water is necessary at any time to balance those canals? How can we enforce any rights under that clause? What object is there in reserving as against us 50 per cent of the water necessary to balance their canals? And yet, they do it.

Now, gentlemen, can you tell us at any stage of this case, now or hereafter, whether this Company has a right to deliver the water on Sundays and holidays, as they suggest in their amended offer? Can you tell us what right they have to balance their canals through our wheels? And if you cannot, how are you going to value it? If you cannot tell us that authoritatively as a matter of law, sitting on this Commission, then what does it all amount to? It is guesswork.

The value of this water power depends, of course, on the number of days which we can have it for use. I think the

Chairman of the Commission made a very good suggestion at one point in this case, pertinent to this very subject. The witnesses were assuming a certain number of restricted days, and it was suggested we put it the other way around, and assume water power for 289 days a year; what is the value of water power for a certain number of days? That is, perhaps, a more direct way than to assume a certain number of restricted days, to be subtracted from the total number of operative days.

How many restricted days have there been and will there be at this plant? Can you tell us? Mr. Allen went to the adjacent mills and took the average number of restrictions at all those mills for a certain number of years. Mr. Main went to the same mills took the subsequent years, and found the average of them all. On the years that Allen took there were 22 restricted days. Taking into account the subsequent years, there was an average of 30 restricted days.

Mr. Warner, who was a witness first called into this case, sent Mr. Newell to the Water Power Company for information. Mr. Newell is a perfectly disinterested and fair witness, who saw Mr. Waters, thinking he was getting close to the head centre of positive information from the Water Power Company, and Mr. Waters returned to him in writing a statement that there were 44 restricted days. That has been explained to mean there were 44 days of surplus restricted, and not of non-permanent restriction. I think the fact of the case was that it lay in Mr. Water's mind that they were using surplus water at this mill. Nobody knows. They don't have any contract with themselves, they were using such water as they could run through there, and they could run anything through there. Water is water, while they are using it, and it has always seemed to me that it lay in Mr. Waters's mind when he returned the answer to this question that it was surplus water that he was considering here. At any rate, he returned 44 days; and therefore, Mr. Warner has assumed that to be true. Bell follows Mr. Main. Mr. Manning, who has had considerable experience at the Amoskeag after examining the second offer, using his judgment, thinks that there will be 53 days, at least, a year that this plant will have to run by steam.

Well, it is all a guess. We don't know. I suspect that



when the City of Holyoke gets it they will have to run by steam quite as much as any other possible purchaser of it would. The Company's witnesses followed Mr. Allen's figures, and assumed they had 22 restricted days throughout. That is on the first offer. In their second offer, their amended offer, they claimed that the water offered covered all Sundays and holidays, and followed the suggestion that if the company fully balances its canals through our wheels, we won't have as many restricted days as under the first offer. Well, we don't know whether we will or not.

Mr. Main, having carefully looked the matter over, tells you that in his opinion it will be about the same. He would not be willing to say that there would be any difference. They have offered us water for condensing purposes, the suggestion being that having offered us this water for condensing purposes, we can run our plant on the restricted days and on Sundays and holidays, having compounded our engines and running them condensing. Well, can we? The trouble with this suggestion is that there is not water in this canal all the time. There were in 1899 or 1900, I forget which, some 11 days of 24 hours each that there was not water in this canal, other than Sundays and holidays, and about half the Sundays and holidays the water was out of the canal. So that we should have to run our engines non-condensing, so far as their offer is concerned, quite a number of days each year.

The CHAIRMAN. What is there to prevent your storing water for that purpose, anything?

Mr. GREEN. I don't think that I am competent to answer that question. I don't know how much storage capacity you would have to have, or just the expense of providing for it, your Honor.

The CHAIRMAN. That doesn't appear of record?

Mr. GREEN. It doesn't appear, and I don't feel competent to answer the suggestion. I probably could ascertain in some way, but I don't recall, do you, Mr. Commissioner Turner, any place where that appears?

Mr. TURNER. I don't remember of any.

Mr. GREEN. No, I don't remember where that has appeared. At any rate, unless something of that sort was done, unless you go outside of the plant, there are a large number of

days that we could not obtain water for condensing purposes from the canal, and more days that we could not have condensing or feed water when we were obliged to run by steam than when we could.

The CHAIRMAN. You have got to have water to run your engines?

Mr. GREEN. Yes, of course, the necessary amount—that, of course, would be a very simple problem, compared with the condensing water. We have very little fear in regard to that, and, as a matter of fact, most of the witnesses have allowed something for feed water in their computations.

It has seemed to us that Mr. Main's opinion on the subject of the restricted days under the new offer, is a conservative one. Of course, it is guesswork, and unless he can assume a certain number of restricted days, he will not place the same value upon this property as he otherwise would; and he gives two values.

Mr. BROOKS. What page are you on?

Mr. GREEN. I don't know, I am not following the brief closely—one based upon the assumption that there are 22 restricted days, and the other upon the strict construction of the lease, taking the lease as it stands, and taking the chances of it.

I want to call your attention to one fact which has probably reached your notice. The term restricted days is variously used by various witnesses, and I have found that counsel have, as the case progressed, used it in two senses; strictly speaking, it refers to the days when the hydraulic engineer intervenes and says that there is not sufficient quantity of water in the canal to supply the terms of their lease.

Mr. BROOKS. That is, restricted days does not mean entire days of restriction.

Mr. GREEN. It means the periods when the hydraulic engineer interferes and you are obliged to shut down—stop, owing to the exercise of the powers granted to him in the lease. The lease does not offer us water on Sundays and holidays, except in the limited form which I have already alluded to, but in many instances witnesses speak of restricted days, meaning days when there is no water to be used at the plant, including Sundays and including the holidays.

The CHAIRMAN. Very well, then.

Mr. GREEN. I might suggest the answer would have to be on several different grounds and from several different standpoints. If you were getting at a value of water power as compared with steam, why, you can run by steam on an average load; that is, you produce such load as you want from time to time; and when you make a comparison of the cost of running this plant by steam and by water, you necessarily get at the average load when you are producing steam power. But we have, in our brief, a chapter, dealing with that particular question.

The CHAIRMAN. Very well, then you had better wait until you reach that.

Mr. GREEN. It is a question, if your Honors please, as suggested by my senior in this case, of cost of rent.

The CHAIRMAN. Yes.

Mr. GREEN. And therefore we have to deal with it from that standpoint.

The CHAIRMAN. Just there, I should like to ask you, if it doesn't disturb you, what power,—if the City should take under that second offer and the engineer should not supply the water when he reasonably could, don't you think you would have a right under that lease, to force him to?

Mr. GREEN. I am free to say that I believe he must exercise his power reasonably, and that we have a legal right, perhaps to enforce our rights, if we knew what they were. But what are they? How can anybody tell? Who knows, besides the officials of this Company, what these various quantities are? We would be perfectly helpless in their hands, and therefore, we suggest what appears to us to be very reasonable, that you force upon us nothing but fixed quantities of water, if you have the power, of course, to deal with the question at all.

One of the important facts in this case is the average load at the electric light station. The Company recognized the importance of that fact when at the beginning of the case they sent Messrs. Green and Whitham to the plant to ascertain what the average load was; and it lay clearly in the Company's mind when they prepared this case that in order to

study the cost of steam power and the value of water power at this plant, they ought to base their calculations on the average load at this plant, because the very first thing they did was to make a pretence at ascertaining that average load.

The CHAIRMAN. I want to interrupt you right there, Mr. Green, for the purpose of ascertaining why you should go on the average load, and the reason that I ask it is this. As I understand it, there are times in the course of the day, running your electrical plant, when you go to the peak of the load. At that time it takes, we will say, eight mill power to do it—whatever it is. Now then, in order to run the plant as it ought to be run, why haven't you got to have eight mill power? I don't know but what you discuss that somewhere.

Mr. GREEN. I do.

The CHAIRMAN. Well, then you needn't bother yourself about it.

Mr. GREEN. We will take the matter up in greater detail later on.

Now, the Company, I say, recognized the propriety of that method of reasoning. You will remember that Mr. Green and Mr. Whitham made a 24-hour test and ascertained that the average load for the 24 hours was 231 horse-power. Of course, it was an unfair test, because it was taken on the darkest day and the busiest day of the year. If the Company, through some of its witnesses, had said relative to that objection, "That was the day we had to take it; the exigencies of the case were such that our witnesses had to go that day," and then had made some fair allowance for the difference between that day and the rest of the year, we should have nothing to say about it. But they pinned their faith to that day with no explanation and no allowance. And then Messrs. Whitham and Allen, Green and H. A. Foster, all of them figured their cost of steam power on an average load of 231 horse-power.

Now, we have had, after a very elaborate set of computations, results stated by Mr. Main, which, we submit to you, are in all substantial particulars correct. He has used the records kept by this Company and simply reduced them to the average load expressed in horse-power; simply figured out the Company's work, averaged its work. Mr. Sickman has, in

distinct terms admitted that such a result will show correctly the average load. It would not give a correct result as he suggests, if you averaged one month or two months, perhaps; but taking a longer period of time, as we took, you will get a correct result. And as a matter of fact, he says that the Holyoke Water Power Company, in practice, ascertains in that way the amount of power being used at any mill in Holyoke, for the purpose of sending in its quarterly bills, and surplus power is paid for on the basis of just such averages.

Main's work, as we have suggested in the brief, on page 468,—it is not necessary for me to follow the figures,—is fully supported by the test which was made by Green and Whitham. We have found for you the average load for the period covered by Whitham and Green's test, and the result, we say, checks Mr. Main's work. All of his calculations have been accepted by our witnesses, and when the rebuttal testimony was reached, they were accepted by the Company's witnesses, and their computations are made on the average basis of 200 horse power. We ask the Commission to accept them as correct.

The cost of coal enters into this problem as an important factor, when it comes to producing power by steam. The Company pinned its entire argument as to the cost of coal upon one or two bills for small amounts of coal purchased in 1897, the bills showing some \$3.95 or \$4.00 per ton for the coal on the cars in Holyoke, and they claim it cost some ten cents a ton to put it into the bin, and therefore they say coal for steam purposes is worth \$4.00 or \$4.05 a ton.

We meet them on their own ground, and on their own argument, and we believe we have sufficiently demonstrated that a purchaser of coal in large quantities in the City of Holyoke can get it very much less, and did get it very much less in the year 1897.

Mr. Rider of the Merrick Thread Company says that Georges Creek coal, on the cars in Holyoke, in 1897, was worth \$3.65 a ton. And that is the same grade of coal that was used at this plant. He allows some five cents a ton, I think,—five or six cents a ton,—for unloading it. He says that is what his company paid for coal, and what they paid for unloading it into the bin at the side of the track, under the same circumstances that are supposed to exist at the electric plant. Mr. Gaylord says that

he paid for Georges Creek coal in 1897 \$3.70 a ton, and to this five cents a ton ought to be added for weighing. Evidently it cost him somewhat more than it did Mr. Rider.

The suggestion was made in cross-examination, or, rather, was implied, that to Mr. Gaylord's figures a profit should be added. I ask you, after considering all the prices stated by Mr. Gaylord and the various manufacturers we called in evidence, to believe that they, or any other user of coal in large quantities, could buy just as cheaply as Mr. Gaylord.

Now, the average of those two prices for the year 1897 was \$3.70 per ton. Our witnesses who express an independent opinion, or assume independently a price for coal in Holyoke, have assumed a price of \$3.75 a ton. Messrs. Main and Warner are clearly in my mind in that respect. And we say, in the year 1897—the year which they have taken themselves,—the only year concerning which they have introduced any evidence,—that we are justified in assuming \$3.75 a ton for coal. The prices for coal in 1896, 1898 and 1899, Georges Creek coal, were introduced in evidence. The average for all those years appears to be some \$3.78 a ton, which fully justifies, again, our witnesses.

It is a matter of common knowledge, of course, that in the last two years coal has been abnormally high. At least I suppose it has been for steam purposes. It certainly has been for household purposes. But we say it is abnormally high, and no attempt has been made to seek an average price over a long number of years. The Company didn't seek to do it, and we sought to introduce evidence relative to the year suggested by them in evidence. If we are to deal with the average price over a long number of years, we rely upon the opinion of Messrs. Main and Warner, who are the only witnesses, I believe, in the case, who have assumed a price apparently representing an independent opinion in the matter.

Passing now to the question of the market value of this water power,—or I won't say this water power, for I don't know what this water power is,—the market value of water power in Holyoke upon the non-permanent basis,—I will ask you first to consider the general market value of water power upon the non-permanent basis, which may be something different than the market value of this water power for the purpose of its use in connection with the electric light station.

We take it that if this Company has had a regular asking rate for water power in Holyoke; if there has been an established going price for power on the non-permanent basis, for which it has been sold and at which it has been bought, right up to within a few months of the period with which we are dealing, that comes pretty near settling the question, irrespective of any steam comparisons, or anything else.

Our friends said when they started the case that they were going to show us that power had been sold in Holyoke, as a usual thing, that it was a regular matter of business there to dispose of power on the non-permanent basis, at a rental of \$1,500 a year and get a \$4,500 bonus. Well, we have obtained all the leases of non-permanent power that have been executed, so far as we know, since the year 1882. They have appeared in evidence for one reason or another. The Commission of course is not, as I understood it, to consider the rents back of 1888, but for some reason and for some purposes they have all come into this case.

Mr. BROOKS. Excuse me just a moment. I do not understand that there are admitted in evidence any rentals back of 1888.

Mr. GREEN. That is what I said.

Mr. BROOKS. I see you have got in your table down to 1882.

Mr. GREEN. Well, we have gone in our table back to 1882 because there are other facts in connection therewith which are in evidence in this case. I call your Honor's attention to the tables on page 471 of our brief. The Dickinson lease—

The CHAIRMAN. There are only two that come back of 1888; that is the first two that you have got down.

Mr. GREEN. Yes, sir. We have not attempted to put in the rent of Parsons No. 1. It seems that the rent of the Dickinson lease is in evidence. If your Honors recall, the Dickinson lease was put in evidence, the entire lease, in Vol. VI, as a part of the petitioner's case, and the rent is stated in the lease; and in that way the rent, I suppose, has got into this table. If your Honors do not care to consider it, it is very easy to pass it by. It is no more in evidence before you in this table than it is in the lease which is part of the evidence in the case. What we were particularly after in all of these leases, besides the rent, was

the area of the land sold in each case, to be put side by side with the amount of power leased. You see that there are eleven leases. If you do not go back of the Mackintosh lease, the terms of which are of course in evidence in this case, there has been no lease of power on the non-permanent basis where the rental has exceeded \$600 a year, unless it be the Mackintosh, Crocker and Dickinson cases, which we will take up for a few passing moments.

Unless they afford an exception, then, \$600 has been the regular going price in the City of Holyoke for power on this basis. And before we come to the question of those leases, just examine this table with me relative to the alleged bonus which the Company says it received of \$4,500 per year per mill power. You understand their theory is that it doesn't make any difference how much land you get, whether you get a square mile or a square inch, if it is sufficient for what is presumed to be the purposes of the particular business contemplated you pay \$4,500 per mill power and get that land free. Well, is that so? We have worked out every instance in this case. There is no proportion or relation between the bonus of \$4,500 and the mill power leased to the Norman or to the Riverside. There does appear to be in the case of the Linden, but clearly in the case of the Riverside and the Norman the land was paid for as land.

Your Honors are going on a tour of inspection, and we are to furnish you a list of the places that we wish you to visit, and among them we trust that you will visit some of these sites, and we assume that our friends have no objection to that.

We shall ask you to believe, after you have been to these various sites and have in your mind clearly the mill district of Holyoke, that this site of the Riverside is one of the most valuable mill sites in the City of Holyoke. And yet it would only be necessary to consider it worth something like 28 or 30 cents a foot to account for all of the alleged bonus, and you understand that there is no relation whatever between the bonus of \$4,500 and the number of mill powers leased to the Riverside.

Let me call your attention to the fact that while the Linden is said to have paid \$4,500 bonus for its land and privilege, it got over 11,000 square feet of land with each mill power. It is right on the same level canal as this plant of the Holyoke Water Power Company—the lighting plant—on the same side of the canal, a little farther south.



Well, now, as I figure the Linden site, it is a square, or rather, rectangular, piece of land, unincumbered with driveways and sewer rights and such things. You need only consider that land worth 37 cents a foot to account for the entire cash payment which they say is bonus for water power. There is no relation between \$4,500 as representing a mill power and the cash payment made for land and water privilege in either of the Riverside transactions.

Again, the very last sale that was made of non-permanent power in the city of Holyoke prior to January, 1898, was to the Riverside. And the petitioner only charged this Company \$600 a year for non-permanent power. Now I know what our friends will say, because they have intimated it in cross-examination, that Mr. Appleton had a valuable option, and that he exercised his option and thereby got his non-permanent power at \$600 a year. Well, he didn't. His option was so *invaluable* and there was so much danger that he would not exercise it that the company gave him this large tract of land which was not covered by the option, two permanent mill powers that were not covered by the option, they gave him the special privilege forthwith of selling the land to another purchaser and the right to move his mill powers on to his first tract of land, and they gave him a secret agreement whereby he was rebated from water rents for an extended period of time. They were holding out inducements to him to exercise that valuable option.

It may be suggested also that the Riverside is on the third level canal, and that as time goes on and the Company comes to appreciate more closely this valuable power that they possess, that while they might lease power at \$600 on the third level canal, they would not on the first level canal. That table shows you conclusively and clearly that there has never been any distinction in the City of Holyoke in the asking price for non-permanent power, depending on the level of the canals. It has been the same thing on the third level, second level and first level canals.

The first lease of power on the non-permanent basis for which the rent was \$600 a mill power was the Parsons No. 2, which is on the first level canal. That was in 1888. The same year they leased non-permanent power to the George C. Gill Paper Company and they charged \$600 a mill power, and that is on the third

level canal. In 1892 they leased non-permanent power to the Norman at a rental of \$600 a mill power. That is on the third level canal, as I recall it. The same year they leased non-permanent power to the Riverside at \$600 a year, and the same year to the Linden at the same rent, and the Linden is on the first level canal. They leased to the Crocker in 1895 and to the Dickinson in 1895. The Crocker is on the second level canal and the Dickinson is on the first level canal, and as we think we shall convince you later, the going rate is the same so far as the real non-permanent power is concerned. And then we come down to the year 1897, and we still find \$600 the prevailing price—the asking price.

It may be that we have omitted in our table and that I have in argument one fact which the petitioner might properly ask you to consider, and I want to mention it for fear that I may be later put in a false position. The lease relative to the Parsons No. 2 cannot be found. That, with a large number of other leases, the so-called secret agreements and other things, disappeared.

Mr. BROOKS. That was put in evidence.

Mr. GREEN. It was put in evidence and is marked in evidence, but there is nothing in the evidence to tell me, and I do not know the price that was paid for the land and privilege, so that I have heretofore in touching upon this same subject said that there was one case, and perhaps two, for I do not know what the facts were in Parsons No. 2, whether there was some proportion between the figure of \$4,500 and the amount of money paid and the number of mill powers at issue in that case.

In addition to the Mackintosh, Crocker and Dickinson cases, it has been suggested that the American Writing Paper Company took over some of these properties at a greater value than \$600 a year rental, and it has also been suggested that the Holyoke Street Railway Company took water power at a price in excess of \$600 a year rental. Those instances, with the three I have mentioned, are all that can be suggested to control the facts of this case as just stated.

Now what are the facts in regard to the Crocker and the Dickinson leases? The argument which applies to one applies to the other.

The Crocker, prior to 1895, were the lessees of six permanent

mill powers, and the leases which are in evidence reveal the fact to us that the rental charged for this in former times is very much lower than the \$600 a year. They were obviously large users of power; that is, their business had grown.

The Crocker, as I said, had under their lease six permanent mill power. That carried the right to three surplus powers under the practice of the Company. It appears from the evidence of Mr. Gross, and from the bills which were brought here and which were sent down from the hydraulic department to the bookkeeping department of this Company, as the basis for the entries to be made upon their books from quarter to quarter or from time to time, whenever the charges were made, that the Crocker was using a large amount of power in excess of its leased power. Their business had obviously grown. They had a plant, their water development was installed. Now as their business increased they wanted more power, and we argue to you that they went to the Water Power Company and they wanted non-permanent power, at what everybody in Holyoke, as far as this evidence reveals, supposed to be the fixed going rate for non-permanent power, and that is \$600 a year. But the Company said to them, No; you have got your permanent power cheap, and that carries the right to three surplus powers; you are using it, and you are in a position where you must use it. We do not want to sell you non-permanent power to take the place of the surplus that you are using. We think we are entitled to have you keep those three surplus powers. The rest of it you can have for \$600 a year, but we think you should take up those surplus powers and keep them, and then we will sell you all the non-permanent on top of that that you want. And so they executed a lease for ten so-called non-permanent powers, the first three—putting it distinctly into their lease that it should be the first three non-permanent powers—at \$1,500 a year; the subsequent seven at \$600 a year.

Now if that were not so they would treat these non-permanent powers all alike. If they were trying to hit an average price of \$800 or \$900 a year for non-permanent power—I do not recall just what the average is—why, they would be all non-permanent powers and the first three would not be in a class by themselves. But what is the fact? We find that the Company

does not treat these non-permanent powers the same. They put the \$1,500 non-permanent into a class by themselves and the \$600 non-permanent into a class by themselves, and they restrict them differently. And the bills to which I have alluded, the papers which were sent down from the hydraulic department to the bookkeeping department, reveal certain facts which we have tabulated on page 474 of our brief. We get this much out of the evidence without having the bills to deal with.

In the bill of July 1, 1897, it is shown that no restrictions at all were placed upon the three \$1,500 mill powers, while the seven \$600 mill powers were restricted  $9\frac{3}{4}$  days during the period covered by that bill. The bill rendered six months later restricts the \$1,500 mill powers 4 1-3 days and the seven \$600 mill powers  $16\frac{1}{2}$  days; and during the next six months period the \$1,500 mill powers are restricted  $3\frac{1}{4}$  days and the \$1,600 mill powers  $16\frac{1}{2}$  days.

We call your attention, then, to the fact that the \$1,500 mill powers are restricted as the 50 per cent surplus takers are restricted, while the \$600 mill powers are restricted with the non-permanent power restrictions; because you will recall instantly that they restrict the non-permanent before they restrict the 50 per cent. surplus.

Now that the Crocker gave up its contract for 50 per cent. surplus when it entered into this last lease we could not prove, because you differed from us in regard to the law in the case. We call your attention now again, however, to that clause in the surplus contract which says that all that the lessee has to do to terminate the surplus contract is to cease taking the power. And we call your attention in that connection to the fact, as stated by Mr. Gross, that for the three years which were open to us in examination, the bills of which we had before us, which followed the Crocker lease, the Crocker took no surplus power whatever. Now while you will not under your ruling probably consider that as bearing upon the termination of that surplus contract, it is proper for you to consider it in this way. It shows conclusively that the thing happened which anybody would expect would happen, and which we argue the Holyoke Water Power Company anticipated when it insisted that a \$1,500 rental should be put upon the powers then actually in use. As soon as the Crocker got non-permanent power it had no need

of surplus except so far as the surplus was indentured under the name of non-permanent and put into a class by itself.

Now the same facts existed in the Dickinson case. I have not gone into those in detail. Briefly, they had the right to six mill powers, carrying the right to 50 per cent. surplus, and the same reasoning applies. It was in the same year. They asked \$1,500 for the first three and \$600 each for the subsequent three. We say that the first three stand in the place of the surplus that they had already been using. I could not find in evidence any allusion to the bills which were rendered the Dickinson, which showed the restrictions that were put upon the \$1,500 mill powers and those put upon the \$600, but it lies in my mind clearly that they were restricted differently, and were treated as the \$1,500 and \$600 were treated in the Crocker case.

We say, then, that in the case of these two mills \$600 represents the going price of power on the non-permanent basis, certainly to any person coming in unencumbered with existing contracts and business obligations to this Company; and we say that the power which masquerades under the name of non-permanent power at \$1,500 a year is a substitute for the 50 per cent. surplus, is so regarded by the Company and is so kept on their bills.

Then the other suggestion is the Mackintosh case, if you can make any head or tail out of it. In the first place, the Mackintosh mill was sold, land, buildings, water power and everything at one time, and the rental is a part of the whole general transaction. That makes it a difficult thing to analyze. In the second place, the Mackintosh mill has a contract, never recorded, but perpetual, running with the original lease, giving it the right to use in the night time the same amount of power for which it may receive notices of restriction during the day time. Now Mr. Mackintosh evidently regarded that of great value, for the correspondence between himself and the Company shows that he laid great stress upon it, and the Company held a directors' meeting in order to vote the concession. It certainly destroys the argument that for a rental of water power on the non-permanent basis it has received more than \$600 a mill power.

I am not going to allude to sales of the American Writing Paper Company. It was ably treated by Mr. Matthews. It is amusing to us up in Holyoke, when we see sales of the common stock at \$1.50 a share—

Mr. BROOKS. Is that in evidence?

Mr. GREEN. It is not in evidence, but—

Mr. BROOKS. I object. There has been a great deal said in argument that there has never been any foundation in the evidence for.

The CHAIRMAN. That is outside the record.

Mr. GREEN. I presume it is outside the record, but I had assumed that ordinary stock quotations, open to the eyes of any intelligent man who reads the papers, could be alluded to in oral argument.

The CHAIRMAN. You make it a fact of such a character that I do not think it should be discussed.

Mr. GREEN. Very well; I will not allude to it. I had assumed, however, that there was no impropriety in it. I had supposed it was very customary in oral argument to allude to matters which are matters of common knowledge, like the going price of stocks and bonds, and I have heard it done a great many times.

The CHAIRMAN. Well, you need not take time on that subject. We certainly cannot hear a discussion of the valuations of the stock market; that is not open as common knowledge to us.

Mr. BROOKS. The evidence was offered at some time in the hearing and was excluded; that is the reason I object.

The CHAIRMAN. Very well. You have got plenty to argue without that, Mr. Green.

Mr. GREEN. Very well, if your Honors please. I was trying to put myself right with the Commission, that is all. Not that I cared about arguing it. I was merely stating that I supposed I had a right to do it. This is suggested to me, and ought certainly to be the fact: if evidence on this point was excluded, then certainly no argument should be made by our friends on the other side tending to show any value to be established by the alleged sales to the American Writing Paper Company.

The CHAIRMAN. We will leave that.

Mr. GREEN. Yes, sir. I want to say a word about the alleged contract with the Holyoke Street Railway Company. It has been touched upon, but I want to call your attention specifically to pages 475 and 476 of our brief.

Mr. BROOKS. Will you be kind enough to tell me where that contract is printed?

Mr. GREEN. You will find it right here in our brief.

Mr. BROOKS. I was looking through the volumes last night and did not seem to be able to discover it.

Mr. GREEN. It refers to Vol. XII, pages 444 and 445. That must be the place.

Mr. BROOKS. Yes, that is so.

Mr. GREEN. We hardly knew whether to allude in our brief to that little contract which our friends introduced in the last few pages of their testimony.

Mr. BROOKS. You put that in.

Mr. GREEN. I beg your pardon. We did not.

Mr. BROOKS. You put it in,—never mind. I won't interrupt again.

Mr. GREEN. But I don't want it to go by implication. It was not put in by us in any way, directly or indirectly, as we take it. It was introduced by the petitioner, to show something additional to the rental for its power sold to the Holyoke Street Railway Company. I won't say anything more. The facts are called to your attention in our brief. But I want you to note for a passing moment what the Street Railway Company got under this contract. That is the essential thing in this case.

In the first place, they got electrical energy which was delivered on the wire outside the building. In the second place, the Company were guaranteed the right to the use of one wheel, or, in case there was no water in the canal or the wheel was shut down, they had an equal amount of power guaranteed to them from the engine. In the third place, if at any time the Holyoke Street Railway Company wanted more power than that, they could have the entire output of power at this plant, provided they didn't trespass upon the present requirements of the Holyoke Water Power Company. You know, take it in the daytime, that the Holyoke Water Power Company is only running a load from 40 to 100 horse power. That is all the power that is required for the station during the daytime, and the only time when the two companies might clash would be during the evening,—during the hours, we will say, from six to seven. There might then be a time when both would be running at their full load. The entire possible output of this plant is sixteen mill

power, on the four wheels. The peak of the load at this station is stated to be about eight mill powers. The Street Railway Company, then, under the most unfavorable circumstances, according to this contract, would get the product of two wheels, or such equivalent amount of steam. They had the right to it, under this contract.

And again, the Holyoke Water Power Company had to do all the repairing, had to carry all fixed charges upon both plants, the steam plant and hydraulic plant, and were responsible for all labor charges and incidentals necessary to put their power upon the wire outside of the building.

This power was to be furnished 18 hours a day, and there was to be a flat rebate, not so much per mill power, but a flat proportionate rebate calculated upon the rental for any period when they for any reason couldn't get power. And at the end of the rental period the Street Railway Company was to take over certain dynamos at a discount of 5 per cent. a year.

Now, that contract may prove some things. It does not prove the rental value of power on the non-permanent basis in the City of Holyoke, and cannot be used for any such purpose.

And our conclusion from all this, gentlemen, that the going rate for power in Holyoke since 1888, and including 1888,—during the period that you have permitted us to investigate,—has been \$600 a year, uniformly, on any level canal; except in two instances, where surplus power was incorporated under the name of non-permanent, and in none other; and that to anybody unincumbered with contracts, who came along and desired to purchase power of this Company, the asking price was \$600 a mill power on the non-permanent basis; and that there is no authority that this Company can show for the statements of Mr. Waters, inserted into the case through the lips of their experts, that \$4,500 a mill power is the price of mill sites, irrespective of the area of land.

We say this first class of evidence is the strongest class of evidence. Now, just for a moment, what is the expert opinion in this case? Passing from the facts to the statements of the experts, the Company's witnesses state, under the first offer that non-permanent power is worth \$1,500 a year rental; I am not going to discuss that. The reasons for that statement were sufficiently dealt with by Mr. Matthews. They say that under



the second offer non-permanent power is worth rather more than \$1,500 a year rental. There is a great difference in value between the first and second offer, they would have us believe. We had it figured out by Mr. Whitham and Mr. Allen. Mr. Whitham testified on the stand that non-permanent was worth, under the terms of the first offer, \$1,500 a year. Under the terms of the second offer, he said it was worth \$1,517 a year. Mr. Allen says under oath, on the stand, that the annual value of the non-permanent power under the first offer is \$1,500; under the second contract, the water power would be worth \$1,577 a year.

Now, the only difference in value between the first offer and the second offer lies in the assumption that, under the first offer we would have to run 22 restricted days besides Sundays and holidays, or besides holidays, by steam; while in the second offer we would only have to run about five days, five or six days, by steam. In other words, so that we would have to run 23 days less by steam under the new offer than under the old, according to their theory. We don't admit the alleged facts at all, but that is their theory.

If you take 23, and consider it in connection with the total number of days you must run, which is 313,—that is admitting Sundays,—it is 23-313 of the time. That is, according to Whitham, \$17 equals the 23-313 of the rental. If that is true, a mill power ought to be worth \$234, annual value.

If you take Mr. Allen's difference of \$77, and treat it in the same way, then the annual rental ought to be a little over a thousand dollars.

I don't ask you to argue anything from those figures, except this: that any method of valuation that will produce such result as that is absurd. Of course it doesn't fix the value of anything.

We say further than this, and will take it up more in detail later, that as far as the opinions of the Company's witnesses are based upon the comparative cost of steam power they are illogical, and their results cannot be accepted.

The witnesses called by the City agree as a matter of opinion that the general market value of non-permanent power, if they can assume a sufficient area of land and not more than a certain number of restricted days, is \$600 a mill power a year. That statement applies to Main, to Manning and to McElwain, but does not apply to Mr. Esleeck. Mr. Esleeck's opinion is that it is worth \$800 a year without a bonus, and I should say that Mr.

Manning's opinion of \$600 is exclusive of bonus, that is, bonus as bonus. When a person says "without a bonus," he necessarily means, we infer, that the land is taken at its value for land.

Mr. McElwain has bought a good deal of water power. He is the man who negotiated the Parsons and Linden sales, which were exclusively sales of water power on the non-permanent basis, and they are both on this same level canal. Besides that, he has been connected with other mills—the Parsons No. 1 and the Valley and the Nonotuck, I think, all of which use other forms of power. The Parsons No. 1 uses permanent and non-permanent and surplus, and the other mills use permanent and surplus. From experience both in the sales and in use we claim he is thoroughly qualified to give an opinion on this subject.

It is hardly necessary to allude to the qualifications of Mr. Main. We claim he has had the widest experience of any witness in this case in connection with steam and water problems. Mr. Manning has had experience with the Amoskeag and is well known. Mr. Esleeck, whom we called here, has had experience with plants run by water power, has bought plants in Holyoke, has operated them by water power and owns and runs plants at Turner's Falls, Mass., where there is a water development on the same Connecticut River.

And in this connection I would call your attention to some averages which are made from the facts in this case, giving the Company the full benefit of the \$1,500 a year rental in the Crocker and Dickinson cases.

If you take all of the leases of power on the non-permanent basis since 1892 you will find that the Company has leased 44 mill powers and that the average of rent received, including therein the Dickinson and Crocker, is \$722 per mill power.

Of course we claim that this \$1,500 should not be included, but if it is included, the average rental is \$722.

If we go back to 1888 we find there have been 63 mill powers rented or leased upon the non-permanent basis, and including these same two instances the average rental is \$685 per mill power.

Now we want to call your attention, before you leave this part of our case, to the fact that the Company has not offered us water power in the form suggested by the Chairman; that

while, if we assume 22 restricted days or 30 restricted days, that might be equivalent to saying that we are dealing with water power for so many days in the year, we are starting with an assumption. If they offer us and you can guarantee us legally and properly water for a fixed number of days a year, say for 289 days in a year, you are then approaching a problem that I should suppose you can deal with with some degree of accuracy and a power that would be susceptible of valuation. What we understand them to offer in this case, however, is water power on certain conditions and limitations at a fixed rent of \$1,500 a year. Now your Honor said to me a little while ago, "Why shouldn't you pay for water at the peak of the load?" Well, they offer us water at \$1,500 a year. Our comparative estimates are all on the basis of steam, which always represents the average load, when we get through figuring as to the cost. Now can we afford to pay \$1,500 a year for water power measured at the peak of the load?

I take it that this Court has assumed from the beginning, that this water power was before them for valuation. It has seemed to me from the beginning that it was not. It has seemed clearly that what the Company intended to do—whether they succeeded in doing it or not—was to say, We offer you water power on these conditions and at this price. You understand that when we say that water power is not suitable, that eight mill powers, at the rent asked, are not suitable for the use of this plant, it is because they cost us too much; it all lies in the rent. If you could give us eight mill power, if you had the right to do so at a proper rental, we could just as well afford to take it under some aspects of this case as we could measured water; not altogether, but substantially. But if you have got to award it to us at \$1,500 a year, that is another thing, so that we say that on the basis of a rental of \$1,500 a year you ought to award the water to us measured. If the rental is fixed, you should take care of us in the method in which we pay for it.

Almost all of the witnesses in this case studied the problem of the value of water power by a comparison with the cost of producing steam power. Our friends began it and ended it. They evidently clearly comprehended the fact, as I have already stated, that the steam power should be figured upon the average load at the plant, and for that reason they found the average

load as they did, 231 horse power. They prepared estimates, or their witnesses prepared estimates, on that basis, and they were presented to the Court by H. A. Foster, Whitham, Green, Anderson; all on the same basis. Later on a different set of calculations was presented by Robb, and then a different set of calculations was presented by Tower, and finally, a brand new set came in in rebuttal.

The Company started out with a set of calculations which contained a large number of erroneous assumptions; but their obvious purpose was to get at the value of water power by a comparison with the cost of steam power at this plant, assuming that we could not alter the plant, that it could not be changed, that it must be run here, and nowhere else, exactly in the condition in which it now stands. And they assumed that we should have to take both plants at their valuation, and that it didn't make any difference to us whether we must run entirely by steam or not, the fixed charges were to be the same, whether we operated by steam and water, or by steam alone.

They assumed that coal would cost in Holyoke \$4 a ton; and they assumed a fixed number of restricted days, 22 in all. They ignored the question of Sundays and holidays, entirely. They made the repair and depreciation account abnormally low when running by water, and abnormally high when running by steam.

It seemed to me, as I have looked back over this case, and particularly as I have read the evidence over in preparation for argument, that the Company performed two or three very beautiful somersaults as the case went on, and abandoned at least two positions with a great deal of celerity. They clung to their first one quite a while, but they let it go, and we have never heard from it since. They started out with a set of tables prepared by H. A. Foster, who was followed by Whitham, Anderson and Green, showing the cost of steam and water power at this plant, and the cost of steam power alone at this plant. We have tabulated their results on page 482 of our brief, so that you can at a glance see where you come out on their suppositions. They assumed a rental of \$12,000 a year for the water, and their calculations are expected to prove to your entire satisfaction that we can pay

\$12,000 a year, not \$24,000 a year but \$12,000 a year, and do better than we can to run by steam. They have not included in those computations any interest charge upon the \$72,000 bonus which they modestly claim in this case. They have performed their mathematical computations in the manner they have, disregarding entirely their own admissions that they would not ordinarily get at the value of water power by a comparison with the cost of steam power, in any such way. Well now, if we take Mr. Foster's figures—I need not follow his processes through, it was done very accurately in cross examination;—but if you reduce the average load from 231 horse-power to an actual load of 187 horse-power, and if you add the fixed charges of the water plant to the hydraulic proposition, where it belongs, the steam being on both sides of the case, you demonstrate at once out of his own figures that you must reduce that \$12,000 water rent \$7,000, without taking into consideration any other errors of his computation. In other words, then, on Mr. Foster's own original figure, by the mere reduction of the average load to substantially the existing fact, and by inserting the fixed charges upon the water plant, you get at a rental which represents the value of the water power at measured rates, without any charge being made for the bonus; that is, without any bonus.

The same treatment will result the same way if you consider the figures of the other four witnesses. Now those were apparently their original computations. They apparently started out to get at the value of this water power by a comparison with steam, on an average load of 231 horse-power. If anything is clear in this case, that is clear, because it is assumed in Foster's, Whitham's, Anderson's and Green's valuation of this power, of course for the purpose of running an electric light station.

Well, after this system of valuation had been sufficiently exploited in cross-examination, Mr. H. A. Foster takes another turn and introduces another mathematical theory, and says that he can get at the value of water power at this plant for the purpose of running the electric lighting station entirely independent of his first proposition or of any statement which was made to him by officials of the Company. His method is explained on pages 483-4 of our brief. I don't think it is

necessary for me to go through it with you. He takes the interest charges on the rent; he takes the interest charges on the bonus, reduces them to horse-power, and finds that they represent \$26.50 per horse-power.

Now he says that that is about what it is worth to develop a mill site, irrespective of the machinery, including the tailrace. Well, under cross-examination, that theory was entirely exploited, or entirely exploded, as far as its applicability to this case is concerned, and as we suggest in the last section on page 484, the cross-examination merely stopped at a point when it demonstrated the fallacy of the calculation; that it could properly have been carried much farther and that, if we are to take Mr. Foster's line of reasoning, we have shown in our brief that it would cost \$125 per horse-power and not \$25, as he says.

Well, Mr. Foster evidently had a hard time of it, because they fetched him back in re-direct examination, with an entirely new set of calculations. You see, they were bound to get that \$12,000 rent in somehow, so this time Mr. Foster comes back and tells us how much it would cost to run this plant if we had to hire condensing water and pay \$7,300 a year for it, although it produces a result far in excess of the first figure stated by him, namely, the cost of running this plant with the engines as they are.

But it is not fair to us, even at his own computation, because while he charges us \$7,300 for feed and condensing water, he doesn't reduce his coal bill a dollar. He lets that stand just the same. He takes his value of the land at the same, whether we are running by one plant or by two. And he doesn't put in any fixed charges, omits them entirely, and he doesn't reduce his average load at all, from 231 horse-power. He still sticks to it, although at this stage of the case it had been practically admitted that it should be about 200 horse-power. The figure of 187 had been used in cross-examination, and the admission had been made that 231 horse-power was too high. The reduction from 231 horse-power to 187, in itself would make a difference of \$2,300 in the coal bill, so that while we have not figured out the result, these omissions and other errors which we suggest for your consideration, demonstrate that the calculation is not conclusive for any purpose in the case.

So, then, apparently this line of argument is abandoned, and Mr. Robb comes forward with a proposition which is intended to look fair. Mr. Robb starts by saying that steam power is worth so much. That is a very good way of starting. He does not find his value of steam power from running this plant or any other particular plant, but he says that a 10-hour horse-power is worth so much money, and that a 24-hour horse-power is worth so much money more. That is, he made a little error against his own interest. He said that a 10-hour horse-power was worth \$40 and a 24-hour horse-power \$96. Then he says, it is a matter of indifference to the owner of this plant whether he pays a bonus of \$72,000 and an annual rental of \$24,000, or whether he produced 341 horse-power by steam. And in the same way, he says that it is a matter of indifference whether you produce by steam 215 horse-power, or produce the same amount at this plant paying \$72,000 bonus and \$12,000 rental.

And in the same way, he finds the amount of steam power which we can afford to produce in comparison with producing a like amount of power by the combined plants, on the assumption of a bonus of \$36,000 and a rental of \$12,000. And in making these computations he puts in certain fixed charges on his water plant, but he omits the fixed charges on the auxiliary steam plant, for no apparent reason, and for which omission no logical explanation can be made. And he makes other omissions to which attention was called in cross-examination and which we have enumerated in our brief; it is sufficient for me to call your attention to the result, giving him the benefit of the correction as to the value of steam power on a 24-hour basis. The result of it all is that instead of its being a matter of indifference to us whether we produce 341 horse-power by steam or by the use of auxiliary plants under the first proposition, it is a matter of indifference to us on his corrected figures whether we produce 305 horse-power. And, you will notice, the final result is that on his assumptions with his figures corrected, it is a matter of indifference to us whether we produce 201 horse-power by steam, or whether we produce a like amount of power with the combined plants, paying a bonus of \$36,000 and paying for our water power measured at surplus rates. That is just about the fact in this

case. So that, very properly and very naturally, at this point the Company abandons that class of calculations. When properly computed they support our position in this case, just as Professor Robb's computation when the proper factors are taken into consideration, results approximately as we contend.

And although they have originally in this case started on the assumption that the value of power at this plant is to be determined by a comparison with the cost of producing steam power at an average load, they now abandon that theory and deal with the question of the cost of steam power running at a uniform load, producing either eight mill power or sixteen mill power.

Will you notice for a moment on page 487, of our brief Mr. Allen's proposition. He figures up what it would cost to produce a 24-hour load of eight mill powers by water and steam at the Company's plant. We claim, of course, that it is erroneous to charge to the steam plant the entire price of land, and we claim that no inference can be drawn from his table, owing to the fact that he runs all the while at the full capacity of eight mill power. No electric station can do that; they run on an uncertain load. His other errors are here noted; the error of \$1,200, which was a computation error made by him; but even on his basis—even on his basis, gentlemen—if you reduce the average load from 231 horse-power to 187 horse-power, and do not change the price of coal, his rent should be reduced to \$8,000, and that is the same as saying that there should be no bonus, for he figures no interest on any bonus in his computation.

But it is in rebuttal that Messrs. Whitham and Allen really get in their fine work, and I want to call your attention to their tables and ask you to examine them side by side with Mr. Main's work. They came back in rebuttal and prepared a set of tables showing the cost of producing power by steam on an average load of 200 horse-power at this plant, and the cost of producing an equivalent amount of power by the combined plants. And while it is out of order, we anticipate Main's evidence in order to compare with them his results based upon the same assumption of facts.

You will find our tables on page 489 of our brief; the first table showing, according to these gentlemen, the cost for



power of operating the electric light station by means of the Company's steam plant. And in connection with this table we have inserted a statement of the cost of the plant as assumed by the various witnesses, the value of land assumed, and the fixed charge rate assumed, wherever we could find them in their evidence.

You see as you glance down the table that the large item of difference lies in repairs and depreciation.

The CHAIRMAN. Main omits the interest and taxes.

Mr. GREEN. I think not, if your Honor please; there is an error if he does. What I mean is, there is a typographical error.

The CHAIRMAN. This table gives Mr. Main's depreciation as \$4,306, and Whitham's and Allen's, \$3,500 and \$3,700. The interest and taxes, Main puts none in—

Mr. GREEN. Just a moment, if you please. It is all in. That should be bracketed, and I am glad my attention is called to it. It is all in the \$4,306. You will notice the fixed charge table which gives Main's depreciation and repairs, 4 per cent; interest, 5 per cent; taxes, 1 per cent; total, 10 per cent. The cost of the steam plant he gives at \$40,360; 10 per cent of that is \$4,306.

The CHAIRMAN. That takes care of two items, then.

Mr. GREEN. It takes care of repairs, depreciation, interest and taxes. It should have been indicated in some way.

Mr. MATTHEWS. In the table.

Mr. GREEN. Yes, it should be in the table. I wish you would mark that.

Mr. MATTHEWS. I will make a note of it here.

Mr. GREEN. We will give it as the witnesses gave it, you see. Mr. Main gave his fixed charge in one item and so we inserted them in one item, while Messrs. Whitham and Allen separated theirs, and we give them as they separated them.

In connection with this table we have called your attention to certain facts. One of them is Allen's depreciation and repair account when he is running on an eight-mill power load. He is here running, you see, on an average load of 200 horsepower. When he is running on an eight-mill power load, in a computation originally made by him to which I alluded a few minutes ago, his repair and depreciation account is \$1,224;

here it is \$3,736. Now I may be a little dull about this matter, but I cannot see why repairs and depreciation should be three times as much when you are running on 200 horse-power as when you are running on eight-mill power load. Yet that is his statement.

We have compared Whitham's original work, also, with this table, and we call your attention to some of his inconsistencies. It is not necessary that I should go through them in detail; they are enumerated. You will find that they have changed their opinion, certainly, and thereby changed their evidence in their direct examination and their rebuttal testimony.

Now on page 491 of our brief we have in the same way put side by side their computations, showing the cost to run the plant on an assumption of \$72,000 bonus and \$12,000 rental. And we there call your attention to the chief items of difference, which you will find in the interest, oil, supplies, labor, depreciation and repair account, and the coal. And in the same way we have gone back to Allen's and Whitham's original tables, wherein they were making computations on exactly the same basis, and have—I should say not on exactly the same basis, but on similar theories—and have called your attention to estimates they there made. I will not dwell upon any of the differences in their testimony at this point, leaving them to our brief, except one. You will notice that Allen and Whitham in their rebuttal testimony adopt an interest rate of 4 per cent. Now an interest rate is always an arbitrary rate; that is something that you will fix, and it is a question of opinion; and for some reason, in rebuttal they took a 4 per cent. rate. As it was necessary in this case, in order to properly compare the results of Allen, Whitham and Main to have the interest charge at the same rate, it occurred to us that it would be wise to look through the evidence and see what rate of interest the Company's witnesses had adopted heretofore as the proper interest rate for such a comparison as this. And we found it.

Every single witness, including Mr. Allen and Mr. Whitham, in his direct testimony, in making these computations had used 5 per cent.—every one of them—and we have given you the book and page for reference.

Then it occurred to us that there was a reason for the change, and the reason is this: That inasmuch as the investment would be greater for two plants, a steam and hydraulic, than it would be for but one plant, namely, a steam plant, the lower you could get that rate of interest the less it would tell against the combined plants, and therefore the 4 per cent. rate had been adopted.

Now inasmuch as these gentlemen themselves, and all other witnesses called by the Company, have used a 5 per cent. rate originally, and inasmuch as every other witness in this case so far as I can recall, except Mr. Manning, used a 5 per cent. rate, we believe the overwhelming authority is a 5 per cent. rate for this calculation, and for that reason we have refigured these tables on a 5 per cent. basis.

Then we set ourselves this problem. We would take the computation which was most favorable to the Company as being the one that we ought to take, and we would treat that table in some way so that you could see how far the witness that made the table had changed from his direct evidence to his rebuttal evidence. Well, of course it goes without saying that Allen's results would be the most favorable to the Company, and they are. The only difference between Allen's and Whitham's figures lies in the investment; that is, they both use the same depreciation charges and interest charges, and they have agreed throughout in everything except the depreciation upon the water plant. One of them gets it a quarter of one per cent. a year and the other one-half of one per cent. a year; but barring that they agree, like the Siamese twins, throughout.

Taking Mr. Allen's table, therefore—

The CHAIRMAN. On what page?

Mr. GREEN. Page 493. We have refigured this table on a 5 per cent. basis. We have allowed the proper area of land for the steam plant. We have inserted here Mr. Allen's original figure for depreciation. We have inserted here his original calculation for the labor item on the steam plant. We have put in his original estimate for supplies for the hydraulic plant and his original labor item on the steam plant. In other words, we have restored Mr. Allen to his original position, as far as we could pick the items out from similar

tables prepared by him in his direct testimony. Well, the result is that he is \$1,000 more favorable to our position than is Mr. Main. That conclusion does not prove anything perhaps from one standpoint, but from another it proves this, that Mr. Allen's result ought not to be accepted inasmuch as he has given us no explanation whatever for his abandonment of his original figures and his assumption of his present figures. We have given the book and page referring you in all instances to his original testimony, and you will find it quite as positive as anything that has been delivered in the case.

Now, we shouldn't claim perhaps that \$1,224 was enough for depreciation, in his first estimate,—I don't remember what the facts are, exactly—just as we claim that \$3,500 is too much for repairs and depreciation in the second estimate. But we have made no attempt to correct the many other items in his final table which we claim are obvious errors. We have simply set Mr. Allen in direct testimony against Mr. Allen in rebuttal testimony.

In rebuttal there were various other tables introduced by Messrs. Allen and Whitham. They introduced a number of computations which will be considered hereafter to which I need not now call your attention. They introduced a computation tending to show the cost of 600 horse-power average load at this steam plant, for some reason, and I only say that our analysis of it is found in our brief, page 495. It is not necessary now to take it up in detail. It was a new computation. We don't know what use they intend to make of it.

The CHAIRMAN. What page is that?

Mr. GREEN. Page 495. We claim it is conclusive of nothing, and is based on false assumptions throughout.

That, in substance, is the method adopted by the Company's witnesses. They have, in the end, agreed that our method of computation is correct. And for fear that my brother Brooks will argue that all they meant in rebuttal was to say that, "If your method was logically applied the results will be thus and so," I want to call your attention to the statement made by Mr. Whitham, at the opening of his rebuttal—I mean where he begins his testimony in regard to the cost of steam power and water power, wherein he states positively, that he would find the value of water power on the basis of an average

load of 200 horse-power, in the way in which he does. And that way is by allowing the proper fixed charges, and using the proper items, as contended for throughout by the City, first in cross-examination as conducted by counsel, and later on by the statements of its witnesses.

Mr. Whitham doesn't claim to be inserting his schedules for the purpose of refiguring on a proper basis our theories, but he adopts in turn those theories, and says, that is the way to find the value of water power, and on that theory it is thus and so.

Now, the methods adopted by the City's witnesses are as they have been explained to some extent in the argument of senior counsel in this case. We have introduced, it is true, certain computations, which would show the relative cost of power at this station on an average load, say, of 200 horse-power, whether produced by steam at the present plant or produced by the combined plants. We have in no instance in this case introduced those figures for the purpose of showing the value of water power at this plant, although in the rebuttal it was assumed by Messrs. Allen and Whitham that we did. We have inserted these computations to meet Professor Robb's theory, or other theories advanced by the other side, to show that on those three assumptions, either one of them, we could better afford to run by the present steam plant.

The results of our various witnesses are tabulated for easy reference by the Commission. One set of witnesses has compared the cost of producing a 200-horse-power average load using the Company's steam and water plant with the cost of producing the same load by steam alone at this plant. Main and Warner did that. Then, other witnesses made a comparison between the cost of producing a 200-horse-power average load at the Company's water and auxiliary steam plant, with the cost of producing it at a standard steam plant. Of course the difference is much more than in the first instance, and such computations were made in one instance by Main, and in all instances by Manning. Then, other witnesses made a comparison which is, in substance, the same as the last,—between the cost of producing a 200-horse-power average load at this plant—that is, using the present hydraulic and auxiliary steam plant,—and the cost of producing the same amount if the plant were properly remodelled.

Now, when Whitham and Allen return in rebuttal, they introduce an elaborate set of tables to prove that if our witnesses had properly and logically applied their methods they would have proven that the value, the annual value, of water power at this plant was something over \$12,000 a year, if a bonus of \$72,000 was in the first instance paid.

Mr. BROOKS. That is on what load, Mr. Green?

Mr. GREEN. That is on an average load of 200 horsepower. That is what they say, and that is why I have so carefully called your attention to the object of the computations made originally by Main and Warner. In no instance did these gentlemen get at the value of water power by those computations: that is, computations comparing the cost of producing a 200-horse-power average load at the present steam plant alone and at the present steam and hydraulic plant.

It would seem also that Mr. Whitham, and I assume also Mr. Allen, must have read the schedules and evidence of the City's witnesses very hastily. Mr. Whitham, for instance, assumes that Mr. Warner didn't figure out this proposition at all, and he says that on the basis of Warner's figures, there could be a bonus of \$72,000 paid and a rent of \$12,000 at a loss of \$243 a mill power per annum.

The trouble is that Mr. Warner did figure out that proposition, as we show on page 499. According to Mr. Warner the annual loss would be \$754 a mill power. When Mr. Whitham comes to refigure Mr. Warner's table, he refigures it on the same basis. Warner makes his calculation on the basis of running the entire plant. Whitham assumes that this plant, the steam plant, the auxiliary plant, need only run five or six days a year—I forget which it is—and yet he extracts from Warner's table the entire pay roll for the engineers when running the entire year, and charges them up to the steam plant for six days. Now Mr. Warner explained in his work that on his theory of running this plant these engineers were not only engineers, but they looked after the dynamos and assisted in the general work of the plant. They are called engineers, they have to be there as engineers, but they are employed in other capacities about the plant.

There were other errors to which it is not necessary at this

point to call attention. For instance, Mr. Whitham says that Mr. Blood made no computations along this line, and therefore he goes to work and makes up a set which he assumes to come out of Blood's testimony, and cannot be found there anywhere. As a matter of fact Mr. Blood made all these computations, and we tell you in our brief where they are found in the evidence.

In the case of Dr. Bell, I think, Mr. Whitham gets in some of his finest work in the case. He states that Dr. Bell says that it would cost a certain amount to run this plant by water and by steam, and he takes those figures and then he takes the figures that Dr. Bell found for running the steam plant, and he works out some result highly favorable to water power on that basis. Now what Dr. Bell did was this: he took for the moment figures which represented the Company's cost of the water plant and steam plant as given by H. A. Foster, and the cost of operating these plants as given by H. A. Foster, and he uses them merely to demonstrate that if those figures were correct, or that if a person was to be forced to pay those figures it would be an entirely losing venture; a person could better afford to pay something and not take the plant. And that is all he used them for. He found no value of this plant whatever, based upon those figures. What he did when he came to get a value for this plant was to take first the cost of operating a standard steam plant, including all fixed charges. He then found the cost of operating the combined plants assuming measured water at \$1,500 per annum omitting all fixed charges; those had to be omitted on his theory, because you understand, that theory depends upon the fact that you leave out of consideration so far as the plant you are valuing is concerned, the fixed charges, for the reason that you are seeking to find the amount of money which you can apply in the shape of fixed charges. It appears, then, that by a comparison with the cost of operating a steam-driven plant of modern design he found the value of this plant. They have simply distorted the evidence of Dr. Bell and have misapplied the assumptions which he made for a purely temporary purpose, and which he abandoned when he thereby demonstrated that on their theory of valuation as expressed by H. A. Foster you could better afford to pay something for the privilege of not taking the plant.

Mr. Tower introduced one or two tables, in his direct testimony, to show the cost of producing sixteen mill power by steam alone or by the combined plants in Holyoke. We have seen fit to tabulate Tower's results side by side with Main's and Manning's. We suggest to you that there are reasons why these computations are of very little use to us. It is in evidence, anyway, and should be considered.

We thought that it would make the task easier for all parties concerned if we tabulated the cost of the plants, or value of the plants, assumed by these three gentlemen for the sake of making their computations, and arranged their results side by side, and we have done so on pages 502 and 503 of our brief on the facts. You will see that they have all assumed coal at about the same price for the sake of comparison, \$4 and \$4.05 a ton—very little difference. For the sake of accurate comparison, we suggest to you that interest on the bonus should be included, at least for the time being, and so we have charged interest at the interest rate accepted by each of the witnesses. We claim that there should be charged to the water plant interest on the bonus. That eliminates itself later on and is only inserted for temporary comparison.

The result of these tables as they stand, in the first instance, is to show that according to Mr. Tower it would be a great deal cheaper to produce this power by water than by steam. The contrary result is determined by Main and Manning.

Now we set ourselves this task: to find out in detail, if we could, just where the difference lay between the computations of Tower and Main, for instance, and Manning, so that you could determine whose contention was right. It only takes a glance to see that the large item of difference is in the coal. You will see that Mr. Tower gets in a coal bill of \$33,359, as against \$21,246 by Main and a lesser amount by Manning, so that when you come to study the coal bill, you strike the chief item of difference between the parties. I won't follow through all these computations with you, gentlemen. We show you that one difference lay in the fact that Mr. Tower is running his steam plant on a load of 1,040 horse-power, while Main and Manning are running on a load of 1,000 horse-power, and the reasons for the difference between these figures are stated by Main. He regards the efficient load as



being about 1,000 horse-power. Then we have made an allowance in the coal consumption — per cent allowance — for that reduction in Mr. Tower's table.

We were very much puzzled by Mr. Tower's statement that he had allowed 2.12 pounds of coal per horse-power hour, and, as he recalled it, 3 per cent of that amount in addition for banking. It seemed to us that if he had allowed that, which would amount in all to about 2.18 pounds of coal per horse-power hour, that amount would be too large, but apparently even that would not account for his large coal bill. So we have figured it out, and we give you the computation in our brief showing what the consumption of coal should be on the basis of 2.12 pounds of coal per horse-power hour, and that would call for 7,229 tons. Now he figures on 8,340 tons. That means, then, that he allows 1,111 tons of coal for banking, when running 24 hours a day six days in the week. In other words, he is allowing just about  $2\frac{1}{2}$  pounds of coal per horse-power hour.

Well, now, you have come to a question of opinion, gentlemen. Mr. Main says that 1.6 pounds of coal per horse-power hour for such a proposition as this is sufficient allowance. Mr. Tower has figured in fact on  $2\frac{1}{2}$  pounds of coal per horse-power hour. Now which is right? We have to there appeal to you on the character and experience of our witnesses and to your own knowledge. It must be that you have had some experience, some knowledge, of what is done at commercial plants, of what is done at manufacturing plants. You have heard our witnesses. And we ask you to accept the statement of Mr. Main that, running on a uniform six-day 24-hour load of 1,000 horse-power, 1.6 pounds of coal per horse-power hour is enough. All Mr. Whitham asks and figures upon in a similar computation, where he is dealing with a cooling tower proposition, is  $1\frac{3}{4}$  pounds of coal per horse-power hour, and we have come to regard Mr. Whitham as capable of figuring on the outside in almost any particular.

Now if Mr. Main is right, and we ask you to believe that he is right from all the evidence in this case, from his apparent fairness and candor, from his wide experience, the result of it all is this: that Mr. Tower's results, properly corrected, are much more favorable for our contention than are the

results of either Main or Manning. You will note another thing, that although Mr. Tower is dealing with a paper mill proposition, as I recall it—at least a manufacturing proposition—he gives no credit for the exhaust steam, which we claim should be given in such a computation as this.

Believing that it would be of interest for you to know just where the result would stand if Mr. Tower's coal bill was corrected—of course it is simply figuring back from his result to our result on one item—but having shown where the difference lies, and having argued to you that we are right in this contention, then we submit to you the result of Tower's computation if his coal bill is corrected, on the theory that we should be allowed for exhaust steam and that 1.6 pounds per horse-power hour is right. The result is expressed on page 505 of our brief. There would be an advantage of steam over water on this basis, according to Tower of over \$12,000, of Main something over \$10,000, and of Manning a trifle over \$7,000.

Now we subtract from these results the interest on the bonus, which was inserted heretofore, to get the amount of money that can be paid for power either for bonus or rent, and the result is that according to Tower we could pay \$8,564, according to Main, \$6,838, and Manning, \$4,207; that there would be an advantage of steam over the water power of those amounts.

Then we subtract those amounts from the assumed amount of \$22,553 in the first instance as the annual water rental, because the remainder represents the amount that could be paid and leave it a matter of indifference whether you operated one way or the other. Accordingly as set out in the table at the bottom of page 505 of our brief we could on this theory pay for water power: according to Tower, \$14,289; Main, \$15,715, and Manning, \$18,336; or, reduced to mill power, divided by 16, according to Tower, \$893, Main, \$982, and Manning, \$1,146. You will see, then, by comparison with the evidence, that the result as given here is the same as that reached by Main and Manning in an entirely different way in their evidence. It is the exact figure which they give. But we could not follow their reasoning side by side with Tower's work, and therefore we have worked it out in this method so as to

be able to carry Tower's table side by side with Main and Manning's. The result is as it had to be, unless some error had been made in computation, the same as the final result reached by Main and Manning. In the end, then, we arrive at this result; that if we are right as to coal cost, the use of exhaust steam, and consumption per horse-power hour, then Mr. Tower fully supports in all his other assumptions the result reached by Main and by Manning, and by this method of figuring we bring home to you clearly, we believe, the exact difference in the computation of these gentlemen.

Now when Main and Manning had reached the result here stated, namely, that for the purpose of producing power in large quantities, a thousand horse-power at a time, in other words, for the most valuable use to which power could be applied, that you could afford to pay, for instance, \$930 a mill power a year. Neither he nor Manning accepted that result as final. It is a mere balancing figure, as Warner puts it—a tentative figure. You must apply your judgment after you have reached this figure. You are not to take it that water power is absolutely fixed by the cost of steam power; steam power is simply an evidence of the value of water power. It is a balancing or tentative figure.

Main and Manning give their opinion on this point as based in part upon these figures as to the general market value of water power, and their opinion, I think, is fully as we have stated. That is, the opinion of Main is that it is worth \$600 a year a mill power with \$4,500 bonus if you get the ordinary area of land and if you can assume not more than 22 restricted days. Manning's opinion differs in that he allows no bonus for the land and privilege, but believes that the land has its value for land alone, and that there is no value for the water privilege apart from the value of the land as land.

You will find on page 507 computations made by Allen and Main as to the cost of producing eight mill power or 500 horse-power by steam in a standard plant on a ten-hour load. You will note that according to Allen the cost of a horse-power per year would be \$29.21. According to Main it would be \$20.49. I am not going to deal with that further than to call your attention to Mr. Newcomb's testimony. Our friends on the other side put him on the stand and asked him to tell us

what steam power was worth in Holyoke, and set before him a problem, or several problems, and one of them was, "What is steam power worth on a 500 horse-power load and ten-hour basis," and he says it is worth in Holyoke \$20 per horse-power. That is somewhat less than Main's result. It fully supports Main.

In a like manner we have set before you Main's and Whitham's computations on page 508 of this brief, and you will notice that it is on the supposition of a 200-horse-power ten-hour load. They assume the same cost, you will notice, of the plant. They work out this result. Main says that the cost per horse-power per year is \$25.32, and Whitham says it is \$34.81.

We call your attention to Newcomb again, who has given you the value of steam power in Holyoke—recognized value there—and on the assumption of an average load of 200 horse-power, ten-hour load, he says that it is worth \$25, and that is 32 cents less than Mr. Main's figure.

These tables are inserted for what they are worth. We do not know what use is intended for them. We followed the lead of the other side; computations were put in by them, and we made the same computations that they might be set side by side.

Now we have stated our conclusions on pages 508 and 509 of this brief. They have been stated in substance by Mr. Matthews in his argument, and I do not think that I can state them as well or as concisely as they are stated by him. These are the conclusions drawn from a steam comparison.

(Noon recess.)

## AFTERNOON SESSION.

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Mr. GREEN. So far as our witnesses are able to find any indications from the cost of steam power, they are united in their conclusion that, on the basis of either of the three suggestions made by the Company as to bonus and as to rent, no one could afford to run the plant by water power. That is, either \$72,000 bonus and \$24,000 rent; \$72,000 bonus and \$12,000 rent; or \$36,000 bonus and \$12,000 rent.

Mr. Main finds that the value of the plant and privilege, if we assume a sufficient area of land and not more than 22 restricted days, and the right to pay \$1,500 a year per mill power on a measured basis, to be \$50,000.

The CHAIRMAN. What is that?

Mr. GREEN. Mr. Main finds that the value of the land and privilege is \$50,000, on the assumption that there are no more than 22 restricted days, that the annual rental at \$1,500 per mill power is on the basis of measured water, and that there is a sufficient area of land to accommodate the mill powers awarded.

Warner, on the assumption of 45 restricted days—otherwise using the same assumptions—values the water plant and privilege at \$50,000, as against Main's valuation of the land and privilege at \$50,000. Warner values the land, privilege and water plant at \$50,000.

Stone and Blood find a value of the hydraulic plant and privilege,—or the plant, land and privilege, of \$85,000. Bell and Manning find values on the same assumption that I have already stated.

Now, I only wish to call your attention to one thing here, and that I think I have already mentioned. You may find an inconsistency apparent on the surface between Main's valuation of the land and privilege alone at \$50,000, and the valuation of Warner, for instance, of \$50,000, for the buildings, land and privilege. The difference lies in the fact that one witness

treats the plant as a power plant simply, and doesn't take the whole plant into consideration, while the other does. I am quite sure that I have called your attention to this fact. Main's whole method of valuation would necessarily lose sight of the loss of power in the tunnels and shafting, because he values the plant simply as a power plant; while Warner, Stone, Blood and Bell, in getting at the operative cost of the whole plant united, will necessarily include in their figures, and by virtue of the comparison that they make with a proper steam-driven plant, all the factors in the case, and will necessarily allow for the disadvantages and defects of this plant, as embodied in tunnels, shafting and belting.

You asked me, if your Honors please, a while ago, why we ask that the power should be awarded on a measured basis? why we ought not to have power to accommodate the peak of the load? why the number of mill powers should not be in harmony with the extreme amount required at all minutes, perhaps, of the day, which is eight mill power, on the basis of the present load, stated roughly?

Our answer is given on page 510 of our brief on the facts. The water, if awarded to us, must be paid for as measured. Otherwise we shall suffer extremely financially in the operation of this plant, and as we have pointed out to you elsewhere, a rental of \$12,000 a year would practically make this plant worthless. That is the result of the computation of a great many witnesses.

At one point of the case Mr. Prichard said that the total cost of operation should be 60 per cent of the gross receipts, and that the power should not exceed 25 per cent of the gross receipts. Now we have computed the amount that should be expended for power at this plant, on that basis, that is, so as not to have the operative expense exceed 60 per cent of the gross receipts. It is not necessary that I should follow through that computation. It is a mathematical computation, set out fully in our brief, and if we have estimated this correctly, our result is correct. It will be decided, I assume, by a careful study of what we have done, that we could afford to pay for the water measured at the rate of \$1,500 per mill power per annum, and not over \$30,360 for the land and privilege. If we pay more than that, our water power in the form

of fixed charges and rent, or interest and rent, I should say, will cost us more than it should, and our total operative expense will be more than 60 per cent per annum. That, of course, is but an indication, but the argument is based on the statement made by Mr. Prichard, and we thought it was worthy of consideration.

The 25 per cent suggestion is hard to figure out. We have had a good deal of difficulty, and I think you will, if you read what Mr. Prichard said, to determine whether he meant that 25 per cent to include fixed charges on the power plant, or to be exclusive of that, and just what he did include. Your result will vary widely, depending on whether you take the fixed charges into consideration or not.

Professor Robb came into this case as an expert on power, relying almost entirely upon his experience in Hartford, and made his Hartford experience and the Hartford rates the basis of his testimony. That was passed upon by this Commission, and, owing to the fact that he so stated himself, we were allowed to cross-examine him in regard to the Hartford plant; and an effort was made by our friends on the other side to show that power down in Hartford cost a certain amount of money, in order that this Commission by comparison would fix a value in Holyoke commensurate, as they claim, with the amount paid in Hartford.

We had Mr. Main in his direct examination suggest to the Commission, I think, the proper items to be taken into consideration to properly make this comparison. Whether we did or not, I am not sure; I know we did in the Springfield case, but whether we did or not, we have a right to suggest out of the evidence, the mathematical reasoning which should be applied here, and have done so, and under sub-head N, on page 513 of our brief. We have there worked out our result, and offer it for your consideration. And we say that to operate a central lighting station in Holyoke by water power, so that the same shall cost no more than is paid in Hartford for water power, the most that can be paid is \$54,034 for the water plant, land, buildings and machinery, and privilege, with no rent, or \$50,072 per annum for rent and labor, and receive the privilege free.

So far as the Hartford case, then, sheds any light upon the  
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question, it shows that our estimates and our reasoning in this case are fair and reasonable.

Well, Mr. Anderson, from Springfield, came forward and qualified himself to testify on water power on the basis of what his company paid in Springfield. He introduced a number of tables, not all of them consistent one with the other, tending to show what water power cost in Springfield. You will remember clearly, I think, that this company paid for its water on a measured basis. It was only in the rebuttal testimony that Mr. Anderson was able to assume the mental attitude that an electric lighting plant ought to pay for water on any other basis. He testified in direct examination that that was the fair and reasonable way and the only way that an electric lighting plant could afford to hire water power.

Mr. Main, I am sure, in this instance, described in detail the method that should be followed to properly work out Mr. Anderson's facts and to determine what the cost of water power was in Springfield, or has been in Springfield, and what Holyoke could afford to pay for water power on the basis of Springfield results. His result is that to operate a central lighting station in Holyoke by water power so that the same shall cost no more than is paid in Springfield for water power, the most that can be paid is \$5,662 per annum for rent, labor and supplies, receiving the plant and privilege free, or a rent of \$1,500 per mill power per annum for measured water and \$3,046 for the plant and privilege.

Now if this Springfield comparison is of any importance, and if you are to take it into account, we claim again that unless there is an error in Mr. Main's computation, the results prove conclusively that we have reasoned fairly heretofore and that our valuation is reasonable.

I do not know that the Commission will ever arrive at the question of the cash value of the land and water power rent free. We do not see how you can ever pass upon that question, because this petitioner does not offer us water power for 289 days or 300 days or 250 days. If they had we should have a different problem to deal with. But they offer us an uncertain amount of water power, and in their second offer they attach to it a reservation the interpretation of which is beyond counsel or commission in this case.



We have attempted to collect for you on pages 521 and 522 of our brief all the evidence in this case that relates to the cash value of the land and water privilege. Mr. Main values the plant and privilege on the basis of the present load at \$100,000. Dr. Bell finds a value of the plant and privilege on the basis of the present load, and water rent free perpetually—and in each case on the basis of an assumed number of restricted days—a valuation of \$190,000. Stone and Blood have estimated the cash value of the water plant and privilege on similar assumptions to be \$138,000. That estimate is for the water plant and privilege alone, while Dr. Bell's valuation is for the entire plant. And you will, of course, in considering this aspect of the case, take into consideration that for general manufacturing purposes, unless you imagine we are going to run an electrolytic process up there or something of the sort nobody ever heard of in our part of the State—that only four or five mill powers are annually available, reasonably available, in connection with the area of land offered. And if that is so, if five mill powers were awarded with this piece of land at the going asking rate of \$600, that amounts to \$3,000 annual rental, to be valued in cash in some form; and if we should take eight mill powers at an annual rental of \$600, that is \$4,800 a year, which is about the amount which Mr. Main finds to capitalize.

We apprehend that eight mill powers is the most that the Company seriously contends ought to go with this plant. Our only reason for so thinking is the fact that they have apparently figured on that basis in their schedules whenever they have advanced any proposition that they appeared to have any real confidence in. It seems to us that the very highest value that could be put upon this privilege and power, if it was to be valued in cash and was to be awarded rent free, would be Main's figure, and you cannot do that unless you guarantee us the number of days of use which Main assumes in getting at his value. And in conclusion, as in the beginning, on any theory and upon any basis, unless you can guarantee the number of days of use we say you cannot value it in cash, because the fact which was assumed by the Company's witnesses at the outset in this case, namely, that the rebates took care of the restricted days, is not true. That I think has been fully demonstrated. Mr. Main has figured it out in detail, and his result is that after

allowing for the rebates on the basis of the present load, and assuming only 22 restricted days, it will cost \$23 and some odd cents in cash for every day of restriction above the rebate which is allowed. That is why he says, and Dr. Bell says, that each day of restriction detracts from the value of this plant about \$500.

And now, as a general and final conclusion of our whole case, we say that you should omit the gas plant from transfer and from valuation because the title to so much of it as lies in the bed of the river is defective. We say that if you do award the gas plant, if our first suggestion is not true, that we should pay not over \$200,000 for it, and you should make an allowance of 5 per cent a year for depreciation on the amount of your award from the date of your valuation extending to the time that the plant is taken over by the City.

We say that you should omit the water plant and the power at the electric plant from the transfer and award, because no water power has been offered for valuation in this case; that a water plant without water is a useless thing. And that, having omitted the water plant and power from the transfer and award, we wish to make this further suggestion, which we are authorized at this time to make, and which does not appear upon our brief but which we will later incorporate.

The electric plant, with its steam plant, is built and designed as part of a general plant which is to have water power. Now if there is no water power to be used, we say that the steam plant and the electric plant are unsuitable for the purpose of their use, for the many reasons, and relying upon the arguments relating thereto which extend throughout our brief; and we therefore ask you, having omitted the hydraulic plant from award as being unsuitable because there is no power to go with it, to omit the steam and electric plants.

Mr. BROOKS. That, as I understand it, means that they are to omit both plants.

Mr. GREEN. Yes.

The CHAIRMAN. That is to say, if we should take your view of it—

Mr. GREEN. That is our request.

The CHAIRMAN. We should not transfer anything, practically; the whole thing would remain in the hands of the Company.

Mr. GREEN. Yes, sir. We do not want any part or parcel of their plant unless we are obliged to take it. We began with that statement and we want to end with that statement; and if the law will help us in any way, or if they, in their desire to avoid a valuation of their water power by this Commission, have put their proposition in such a form that this Commission ought not to award this plant in whole or in part, we desire to stand upon our rights.

Mr. COTTER. Why did your people pass the vote, then?

Mr. GREEN. Because, Mr. Commissioner Cotter, they believed that they could build a decent new, comparatively modern at least, electric plant there, and light their streets and public buildings. They believed they had a right to do it, a reasonable right to do it, and having once determined to do it, they did not propose to be driven out of doing it.

The CHAIRMAN. You mean if we should conclude that no title should pass and no property could pass, you would then set up a plant of your own?

Mr. GREEN. We would then build just what we designed to build, a little plant in Holyoke to light our streets and public buildings. If you will examine our vote you will see that is all that was ever designed to be done—all we ever designed to do.

Mr. BROOKS. Does that also apply to the vote of a year ago, in July?

Mr. GREEN. It applies to it to this extent, and I am perfectly willing to answer the question. The Company then takes us by the throat and says, We have got you, we can run this plant here for the next seventeen years, nothing can stop us, we can take this litigation to the Supreme Court and the United States Court, and we will have the profits and you will take the junk heap when we get through with it; and therefore, unless you want to get knocked into financial smithereens, come to our terms. Well, there was altogether too much fighting blood built into the Holyoke constitution to accept those terms; and although they are obliged to get more than they wanted, perhaps, and they may be and probably will be obliged to pay more than some portions of this plant are worth, at least on our theory, they preferred to face the music than to be driven by the Holyoke Water Power Company.

The people of Holyoke in that second vote never expressed any desire to take this gas plant or this electric light plant. They said they would face the music rather than to run away from their original proposition.

The CHAIRMAN. I do not see how that has anything to do with the evidence here.

Mr. GREEN. I was asked a question and I answered it.

The CHAIRMAN. Oh, yes, certainly; but we have got to value this property according to law.

Mr. GREEN. We say that the value of the steam and electric plant is not over \$80,000 apart from the hydraulic plant, and ask you to award a sum not in excess of that amount and to allow us depreciation at 10 per cent per year between the date of your award, January, 1898, and the day of the transfer; assuming, of course, for the moment, that you overrule our first suggestion and that we have to take the plant.

That, if you decide that we are to take the water plant, then we ask you to award therefor not over \$65,000, less two per cent per annum for depreciation between the date of your award and the date that we are obliged to take over this property.

We ask you, then, in substance, upon the legal propositions advanced, to decide that we are not to take this property. But if we are, then we ask you to award an amount not to exceed the sums that we have suggested, and to allow the sums for depreciation that we have suggested, between the date of the award, whenever that may be, and the time of taking over the plants.

Mr. COTTER. In order to avoid any misunderstanding, Mr. Green, I will ask you a question,—of course that is without expressing any opinion, one way or the other. Assuming that the property is to pass to you, in accordance with your theory of the case what is the total amount of damages which you think this Commission ought to assess against the City of Holyoke?

Mr. GREEN. You mean if the whole plant should be awarded?

Mr. COTTER. Yes.

Mr. GREEN. It should be not over \$345,000.

Mr. COTTER. \$200,000 for the gas plant?

Mr. GREEN. Yes, and not over \$145,000 for the hydraulic, steam and electric plants, less depreciation at the rate suggested between the date which is agreed upon for valuation, or determined as the proper date by this Commission for valuation; for example, January, 1898; between that and the day of taking over the property. And you understand that the value of the steam and electric plants,—or, rather, the total value of the steam, electric and hydraulic plants, is coupled with the right to have our water power, if it is to be paid for at the rate of \$1,500 a year, bought at measured rates.

I thank you, gentlemen, for your attention to what, in many respects, is a difficult task; that is, to listen to many figures and the attempt to explain them in the limited amount of time which I have taken. It is long in itself, but it is short considering the amount of territory which our brief embraces.











